THE AMERICAN ENERGY INITIATIVE, PART 22: EPA GREENHOUSE GAS REGULATIONS

HEARING

BEFORE THE

SUBCOMMITTEE ON ENERGY AND POWER OF THE

COMMITTEE ON ENERGY AND COMMERCE HOUSE OF REPRESENTATIVES

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THE AMERICAN ENERGY INITIATIVE, PART 22: EPA GREENHOUSE GAS REGULATIONS

FRIDAY, JUNE 29, 2012

HOUSE OF REPRESENTATIVES,
SUBCOMMITTEE ON ENERGY AND POWER,
COMMITTEE ON ENERGY AND COMMERCE,
Washington, DC.

The subcommittee met, pursuant to call, at 9:05 a.m., in room 2123, Rayburn House Office Building, Hon. Ed Whitfield (chairman of the subcommittee) presiding.

Members present: Representatives Whitfield, Shimkus, Walden, Terry, Burgess, Scalise, McMorris Rodgers, Olson, McKinley, Gardner, Pompeo, Griffith, Rush, Castor, Markey, SGreen, and Waxman (ex officio).

Staff present: Anita Bradley, Senior Policy Advisor to Chairman Emeritus; Maryam Brown, Chief Counsel, Energy and Power; Allison Busbee, Legislative Clerk; Patrick Currier, Counsel, Energy and Power; Andy Duberstein, Deputy Press Secretary; Cory Hicks, Policy Coordinator, Energy and Power; Heidi King, Chief Economist; Ben Lieberman, Counsel, Energy and Power; Mary Neumayr, Senior Energy Counsel; Phil Barnett, Democratic Staff Director; Alison Cassady, Democratic Senior Professional Staff Member; Greg Dotson, Democratic Energy and Environment Staff Director; Kristina Friedman, Democratic EPA Detailee; and Caitlin Haberman, Democratic Policy Analyst.

Mr. WHITFIELD. I would like to call this hearing to order this morning.

Before I make my opening statement, I would like to recognize Mr. Shimkus for a special introduction he would like to make this morning.

Mr. Shimkus. Thank you, Mr. Chairman.

We want to always welcome all of our guests who come to the Energy and Commerce Committee, especially those we ask to come to testify. But I want to make sure I recognize my son, Daniel Shimkus, who is in the back there, very humble, and he has been joining me this week. So thank you, Mr. Chairman, for letting me do that; and I am going to take him to get a nice big omelet for breakfast.

Mr. WHITFIELD. Well, thank you, and we appreciate him being with us this morning, as well as everyone else in the audience, because this will be an exciting morning with Ms. McCarthy here, and we appreciate her being here as well.

OPENING STATEMENT OF HON. ED WHITFIELD, A REPRESENT-ATIVE IN CONGRESS FROM THE COMMONWEALTH OF KEN-TUCKY

This is the 22nd day of our hearing on the American Energy Initiative, and today we are going to discuss the EPA's greenhouse gas regulatory agenda.

On June 19th, we heard testimony from a variety of job-creating sectors of the economy; and all of them expressed significant concerns about current and upcoming greenhouse gas regulations.

As I have said, we are pleased to be joined today by EPA Assistant Administrator for Air and Radiation, Gina McCarthy. We welcome her back and look forward to learning more about EPA's perspectives on these regulations and their impacts on the economy and jobs.

I would like to just make a couple of comments about the DC Circuit Court decision on EPA's greenhouse gas regulations that was handed down earlier this week and want to focus in on the Tailoring Rule, and I would like to make clear that the Court declined to pass a judgment on the Tailoring Rule, simply because it concluded that none of the petitioners had the standing to challenge it.

So as permitting thresholds under the Tailoring Rule are ratcheted down in the coming years, it is going to affect hundreds of thousands of farms and small businesses. We had a witness representing the American Farm Bureau Federation just a couple of days ago who testified that farmers and ranchers receive a double economic jolt from the regulation of greenhouse gases from stationary sources.

tionary sources.

First, any cost incurred by the utilities, refiners, manufacturers, and other large emitters to comply with greenhouse gas regulatory requirements will be passed on to the consumers, and certainly that is them, because they buy a lot of products. And, secondly, farmers and ranchers will face the distinct possibility themselves of direct regulatory costs resulting from regulation of greenhouse gases by EPA once EPA starts reducing the limits set out in the Tailoring Rule.

When asked about the ultimate consequences of EPA's greenhouse gas agenda, Mr. Shaffer predicted that many small farmers may actually end up going out of business; and the American Bakers Association spoke about absurd implications of lower thresholds under the Tailoring Rule and asked the question, would our baker tell a retail grocer to wait on filling a hot dog order while

he applied for a permit modification?

The bottom line is that the cost of any new, overly broad rules that regulate greenhouse gas and baking ovens will ultimately force American families to pay much more for baking goods and that some expansions planned by the bakers will not take place, thus reducing jobs that might have been available at this time when our economy needs them most.

I am also deeply troubled by EPA's continued views on coal and the role of greenhouse gas regulations relating to coal. Ms. McCarthy's written testimony today claims that the greenhouse gas new source performance standards provides a pathway forward for coal. But at the June 19th hearing we heard from an electric cooperative who testified quite clearly that this is simply an illusion. Steven Winberg, the chairman of FutureGen Industrial Alliance, stated that, in effect, EPA's rule will eliminate any new coal for years to come because EPA is requiring new coal fuel power plants to meet a natural gas equivalent CO2 standard before carbon capture and sequestration technology is commercially available.

And I might add that Alpha Coal and Arch Coal recently announced mine shutdowns and layoffs in Kentucky. The impact on jobs is no longer a matter of conjecture. It is a reality for a growing number of miners and others whose employment depends on coal.

Although EPA officials constantly refer to health benefits of their multitude of rules, they do not even consider the health impact on the families of the coal miners and others who lose their jobs. Of course, that is not surprising since, when he was a candidate for president, Mr. Obama in a speech in San Francisco said that his policies would end up bankrupting the coal industry.

And coal is not the only energy source under siege. A small business refiner testified that greenhouse gas regulations would result in reduced domestic refining capacity, loss of high-paying manufacturing jobs, and higher fuel costs for the consumers. So we have a lot of concerns, even though this greenhouse gas regulation is not final.

[The prepared statement of Mr. Whitfield follows:]

Opening Statement of the Honorable Ed Whitfield Subcommittee on Energy and Power Hearing on "The American Energy Initiative: A Focus on EPA's Greenhouse Gas Regulations" June 29, 2012

(As Prepared for Delivery)

This is the 22nd day of our hearing on the American Energy Initiative, and today we will discuss EPA's greenhouse gas regulatory agenda. On June 19th, we heard testimony from a variety of job-creating sectors of the economy. All of them expressed dire concerns about current and upcoming GHG regulations.

Today, we are pleased to be joined by EPA Assistant Administrator for Air and Radiation Gina McCarthy. I welcome her back and look forward to learning more about EPA's perspective on these regulations and their impacts on the economy and jobs.

But first, I would like to say a few words about the DC Circuit Court decision on EPA's GHG regulations that was handed down earlier this week. A lot has been said and written about the decision in the last few days.

I think it is important to set out what the decision says and what it doesn't say, especially on the Tailoring Rule. We need to make clear that the court never addressed the legal merits of that very important rule. Instead, the court declined to pass judgment on the Tailoring Rule because it concluded that none of the petitioners had standing to challenge it.

The end result of the court's ruling is the Obama EPA's backdoor carbon tax remains in effect. So now we have an Obama health care tax and a carbon tax.

As permitting thresholds under the Tailoring Rule are ratcheted down in the coming years, it will affect hundreds of thousands of farms and small businesses. And we heard tremendous concern last week from a wide-ranging group about it.

A witness representing the American Farm Bureau Federation testified that:

"Farmers and ranchers receive a **double economic jolt** from the regulation of GHGs from stationary sources. First, any costs incurred by utilities, refiners, manufacturers and other large emitters to comply with GHG regulatory requirements will be passed on to the consumers of those products, including farmers and ranchers ... Secondly, farmers and ranchers will face the distinct possibility of direct regulatory costs resulting from regulation of GHGs by EPA."

When asked about the ultimate consequences of EPA's GHG agenda, Shaffer predicted that:

"the American consumer is going to be living off imported food."

And the American Bakers Association spoke about absurd implications of lowered thresholds under the Tailoring Rule and asked:

"Would our baker tell a retail grocer to "wait" on filling a hot dog order while he applied for a permit modification?... The bottom line is that the cost of any new overly broad rules that [regulate GHG] in baking ovens will ultimately force American families to pay more for baked goods."

I am also deeply troubled by EPA's war on coal, and the role of GHG regulations in that war. Ms. McCarthy's written testimony today claims that the GHG NSPS "provides a pathway forward for coal," but at the June 19th hearing, we heard from an electric cooperative who testified quite clearly that this "is simply an illusion."

Steven Winberg, the Chairman of the FutureGen Industrial Alliance, stated that:

"in effect, EPA's rule will eliminate any new coal for years to come because EPA is requiring new coal-fueled power plants to meet a natural gas equivalent CO2 standard, before CCS technology is commercially available."

And I might add that Alpha Coal and Arch Coal have recently announced mine shutdowns and layoffs in Kentucky. The impact on jobs is no longer a matter of conjecture, it is a reality for a growing number of miners and others whose employment depends on coal.

And coal is not the only energy source under siege. A small business refiner testified that GHG regulations would result in:

"reduced domestic refining capacity, loss of high-paying manufacturing jobs and higher fuel costs for the consumer."

Bad news for energy producers translates into bad news for energy consumers, including industrial consumers. The CEO of one industrial consumer testified that:

"there is **no question** that Clean Air Act regulation of GHG emissions will deter production, investment, and job creation in the US in favor of other countries."

I must say that I found this testimony compelling, especially given that so many different sectors of the economy are saying the same thing about GHG regulations. It is hard for me to believe that they are all wrong. But I am interested in gaining EPA's point of view, and hope that we can accomplish that today.

Mr. WHITFIELD. And I see my time is already expired. So, at this time, I would like to recognize the gentleman from Illinois, Mr. Rush, for his opening statement.

OPENING STATEMENT OF HON. BOBBY L. RUSH, A REP-RESENTATIVE IN CONGRESS FROM THE STATE OF ILLINOIS

Mr. RUSH. I want to thank you, Mr. Chairman, and I applaud you for holding this hearing today, especially in the wake of such stunning court defeats, undermining the argument that you and the other—the majority side, the other side, has been making against the policies of the Obama administration.

Mr. Chairman, in this case, I am of course referring to the DC Circuit Court of Appeals ruling on Tuesday, which, in a unanimous decision, the judges strongly and fairly affirmed EPA's authority to

regulate greenhouse gas emissions.

Mr. Chairman, I would be remiss if I did not also applaud and commend Assist Administrator for Air and Radiation, Miss Gina McCarthy, for the expertise, for the professionalism, and for the dedication that she has always displayed each time she has come before this committee to defend her agency. Although she is too much of a professional to admit it, I am sure she must take a great amount of personal and professional satisfaction in knowing that the courts have once again validated the work that she and her

agency have been doing on behalf of the American people.

Mr. Chairman, in a resounding and unequivocal victory for the EPA and its regulatory authority, the Federal Appeals Court decision rebuffed industry arguments against four important Obama EPA rulings. The Court upheld EPA's endangerment finding which established that greenhouse gases contribute to climate change and harm human health; the Tailoring Rule, which narrows permitting a requirement to only the heaviest emitting industries, exempting smaller facilities; the Tailpipe Rule, which allows EPA to create common standards for light-duty vehicles, in addition to the National Highway and Traffic Safety Administration fuel efficiency standards; and the Timing Rule, which requires that greenhouse gas emission standards from stationary sources take effect at the same time as the—rule.

Mr. Chairman, in their arguments, the judges ruled that the endangerment findings and the Tailpipe Rule were neither "arbitrary" nor capricious, while also declaring that EPA's interpretation of the Clean Air Act was—and again I quote—"unambiguously correct," end of quote. And to the chagrin and contrary to the decisions of the waves of witnesses that have come before this subcommittee, the Court also found that industry petitioners had no standing to challenge the Timing and Tailoring Rules, because

these rules would, in fact, benefit rather than harm them.

Mr. Chairman, today's decision—or Tuesday's decision, rather simply confirms the Supreme Court's 2007 Massachusetts v. The EPA ruling that the agency does have the right and indeed does have the obligation to regulate carbon since greenhouse gas emissions meet the definition of a pollutant under the Clean Air Act.

Despite the talking points that we have heard time upon time, countless times, from industry representatives appearing before this subcommittee, hopefully these Federal Appeals Court rulings to uphold EPA's basis for regulating greenhouse gas emissions has deprived the majority party and their industry allies of many of their most-often-repeated arguments against EPA climate regulations.

Mr. Chairman, I hope that Tuesday's decision will spur the majority party to work with our side to find constructive ways to strengthen the provisions on the Clean Air Act and to find collaborative ways to address legitimate concerns where they may exist.

Mr. Chairman, with that, I yield back the balance of my time.

Mr. WHITFIELD. Thank you, Mr. Rush.

At this time, I would like to recognize the gentleman from California, Mr. Waxman, for 5 minutes.

OPENING STATEMENT OF HON. HENRY A. WAXMAN, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF CALIFORNIA

Mr. WAXMAN. Thank you, Mr. Chairman.

I am sorry to hear the statement about people losing their jobs in the coal industry. I know that is very difficult for those people and their families. But I would respectfully submit that if they are losing their jobs, it is not because of regulation. It is primarily because they are not able to compete in the marketplace where natural rearing theorem.

ural gas is cheaper.

But today's hearing continues the 18-month Republican attack on the Clean Air Act, EPA regulations, and the science that informs our understanding of the effects of air pollution. The House Republicans have made this the most anti-environment House in history. To date, the Republicans have voted more than 270 times on the House floor to weaken long-standing public health and environmental laws, block environmental regulations, defund environmental protections, and oppose clean energy.

The most shameful aspect of this anti-environment campaign is the denial of science. There is no way to govern responsibly if you refuse to accept the findings of the National Academy of Sciences and the rest of the scientific community. Yet that is what is hap-

pening on this committee.

Here is what one of the world's preeminent science journals, Nature, wrote about this committee's votes to deny the existence of climate change: "It is hard to escape the conclusion that the U.S. Congress has entered the intellectual wilderness, a sad state of affairs in a country that has led the world in many scientific arenas for so long. Misinformation was presented as fact, truth was twisted, and nobody showed any inclination to listen to scientists, let alone learn from them. It has been an embarrassing display not just for the Republican party but also for Congress."

This willful blindness may enrich oil companies and other big polluters, but it is reckless, and it is dangerous. And I would submit that the coal industry is going to suffer even more because they are not willing to work with us to try to find a way to make coal a viable option in our energy portfolio by figuring out the tech-

nology to remove the carbon emissions.

All you need to do, if you doubt my concerns about paying attention to scientists, just turn on the news. Wildfires are burning hundreds of homes in Colorado. Rains are flooding Florida. These ex-

treme weather events will become more common as we deny the

science and pretend we can ignore the laws of nature.

Earlier this week, the DC Circuit Court of Appeals provided a refreshing dose of reality. In a unanimous decision, which included Reagan-appointed Chief Judge Sentelle, the panel dismissed all the challenges to EPA's endangerment finding, tailpipe standards for greenhouse gases, and Tailoring Rule.

House Republicans have said over and over again that EPA is acting without congressional authorization. Here is what the Court said about that: EPA's interpretation of the governing Clean Air Act provisions is "unambiguously correct."

This decision was a huge victory for science. The Court dismissed every challenge to the adequacy of the scientific record, supporting the finding that greenhouse gases endanger public health and the environment. The Court found that an "ocean of evidence"—that is in quotes because that is their term—supported EPA's findings, and it held that EPA was right to rely on the work of the National Academy of Sciences and other authoritative bodies writing, "This is how science works. EPA is not required to prove the existence of the atom.'

Today, we will hear from Gina McCarthy, who runs the air program at EPA. As the Court recognized, she and her agency are acting responsibly. They are listening to scientific experts. They are crafting responsible policies. Yet all this committee tries to do is throw sand in the gears. Our record is a deplorable one of denial and obstructionism.

The question we should be asking is not what we can do to stop reasonable regulation but how we can help the families whose homes are being burned in Colorado Springs and flooded in St. Petersburg and how we can help the families who are losing jobs in the coal industry because that industry is refusing to recognize re-

I yield back the balance of my time.

Mr. WHITFIELD. Thank you, Mr. Waxman.

At this time, I would like to recognize Ms. McCarthy. Thank you very much for joining us today, and you are recognized for 5 minutes for your opening statement.

STATEMENT OF REGINA MCCARTHY, ASSISTANT ADMINIS-TRATOR FOR AIR AND RADIATION, ENVIRONMENTAL PRO-TECTION AGENCY

Ms. McCarthy. Thank you, Chairman Whitfield, Ranking Member Rush, and other members of the committee. I appreciate the opportunity to testify today on EPA's efforts to reduce carbon pollution under the Clean Air Act.

The Supreme Court held in 2007 that greenhouse gases are covered by the Clean Air Act's broad definition of air pollutants. Just this week, the U.S. Court of Appeals for the DC Circuit confirmed that EPA followed both the science and the law in issuing the endangerment finding for greenhouse gases and in proceeding to take common sense actions to address carbon pollution from vehicles and other large sources. The Court found, and I quote, "that the body of scientific evidence marshaled by EPA in support of the endangerment finding is substantial." End quote.

The Court confirmed that the Clean Air Act required EPA to set greenhouse gas standards for cars and light-duty trucks and that the Act unambiguously requires application of stationary source permitting programs to greenhouse gases.

Finally, the Court ruled that EPA's Tailoring Rule alleviates burden on industry and the States, and they dismissed all challenges

to that rule.

Reducing greenhouse gas pollution is critically important to the Americans' public health and the environment upon which we depend. As the Court underscored, there is abundant scientific evidence that the Earth is warming, that anthropogenic carbon pollution is largely responsible for that warming, and that if climate change goes unchecked it could have devastating impacts on the United States and this planet.

Climate change resulting from carbon pollution is leading to more frequent and intense heat waves and is projected to increase ozone pollution over broad areas. It is expected to lead to sea level rise, more intense hurricanes and storms, heavier and more frequent flooding, increased drought, and more severe wildfires, events that can cause deaths, injuries, and billions of dollars of damage to property and the Nation's infrastructure. Some of these

impacts already have been observed.

ÈPA's first step to reduce harmful greenhouse gas pollution have begun with motor vehicles which are responsible for nearly a fourth of the U.S. greenhouse gas emissions. At President Obama's direction, EPA and the National Highway and Traffic Safety Administration have worked together to set greenhouse gas and fuel economy standards for model years 2012 to 2016 passenger vehicles and to propose standards for model years 2017 to 2025. Over the life of these vehicles, these standards will save an estimated \$1.7 trillion for consumers and businesses and cut America's oil consumption by 12 billion barrels, while they reduce greenhouse gas emissions by 6 billion metric tons. EPA and NHTSA standards for heavy-duty trucks and buses, which were issued in August of 2011, present a similar success story which is outlined in my written testimony.

In January, 2011, States and EPA initiated Clean Air Act permitting of greenhouse gas pollution from the largest and new and modified stationary sources. EPA's Tailoring Rule upheld by the Court this week phases in these permitting requirements by focusing on large industrial sources. To date, dozens of large facilities such as cement plants, power plants, refineries, and steel mills

have already received permits for greenhouse gas.

On March 27th, 2012, EPA proposed a carbon pollution standard for new power plants. Power plants represent the single largest source of industrial greenhouse gas emissions in the United States, accounting for approximately 40 percent of U.S. CO2 emissions. EPA's proposed new standards for power plants, just new power plants, could be met by current natural gas combined cycle units or by units that are fueled by coal or petroleum coke that use carbon capture and sequestration, or CCS.

The Nation's electricity comes from diverse and largely domestic energy sources, including coal, natural gas, nuclear, and, increasingly, renewable energy sources. The proposed standard that we have put on the table for public comment does not change that fact. It reflects the ongoing trend in the power sector to build cleaner power plants, while providing a path forward for coal with CCS.

power plants, while providing a path forward for coal with CCS. Over the past 3 years, EPA has proceeded in a careful and deliberate manner to address carbon pollution under the Clean Air Act consistent with the resounding body of science as well as the law. Our experience during more than 40 years of Clean Air Act implementation is that pollution reduction and a healthy economy go hand in hand. Together with other policies, Clean Air Act measures to reduce carbon pollution can combat harmful climate change while at the same time supporting a transition to a cleaner, more efficient, and more prosperous energy future.

Again, thank you for allowing me the opportunity to testify; and

I am happy to take questions.

[The prepared statement of Ms. McCarthy follows:]

Opening Statement of Regina McCarthy Assistant Administrator for Air and Radiation U.S. Environmental Protection Agency

Hearing on EPA Regulation of Greenhouse Gases Subcommittee on Energy and Power Committee on Energy and Commerce U.S. House of Representatives June 29, 2012

Chairman Whitfield. Ranking Member Rush and other members of the Committee: Thank you for the opportunity to update you on the Environmental Protection Agency's efforts to reduce carbon pollution, which causes climate change and thereby poses a threat to the health and welfare of the American people.

The Supreme Court held in 2007 that carbon dioxide and other greenhouse gases are covered by the Clean Air Act's broad definition of air pollutants. The Court said that EPA must decide whether greenhouse gases endanger public health or welfare, and whether emissions from new motor vehicles contribute to this air pollution. After considering the extensive scientific evidence, EPA issued endangerment and contribution findings in December 2009. Since then, EPA has taken a deliberative and common sense approach to limiting carbon pollution – using Clean Air Act tools to focus on the largest emitters first and to achieve cost-effective reductions.

On June 26, the U.S. Court of Appears for the D.C. Circuit upheld EPA's endangerment finding, its greenhouse gas emission standards for light duty vehicles and its Tailoring Rule, which, as explained below, establishes a phased approach for applying certain Clean Air Act permitting requirements to stationary sources based on greenhouse gas emissions – focusing on large sources.² The Court confirmed that EPA followed both the science and the law in these actions. In upholding the endangerment finding, the Court stated: "The body of scientific evidence marshaled by EPA in support of the Endangerment Finding is substantial." The court also confirmed that the Clean Air Act required EPA to regulate greenhouse gas emissions from cars and light trucks.⁴ and that

¹ In Mussachusetts v. EP.1, 549 U.S. 497 (2007), the court also explained that EPA was required to regulate motor vehicles if we found that their emissions contributed to the endangerment.

² Coalition for Responsible Regulation, Inc. et al. v. EPA, No. 09-1322 (CADC 2012).

³ Id. at 28.

⁴ Id. at 39-45.

the Act "unambiguously" requires application of relevant stationary source permitting programs to greenhouse gases.⁵ Finally, the court ruled that the litigants in the case are not harmed by EPA's Tailoring Rule –which establishes a phased approach to stationary source permitting for greenhouse gases –and therefore lack standing to challenge it.⁶

EPA's actions to address greenhouse gas pollution are not only consistent with the science and the law; they are also good policy. For example, our vehicle greenhouse gas rules, together with the National Highway and Traffic Safety Administration's (NHTSA) fuel economy standards, will significantly reduce our dependence on oil and save money for consumers and businesses. At President Obama's direction, EPA and NHTSA have worked together to establish greenhouse gas and fuel economy standards for model year 2012-2016 passenger vehicles, and proposed standards for model years 2017-2025, that will drive production of a new generation of cleaner, more efficient vehicles. Taking these two programs together, along with NHTSA's 2011 CAFÉ standards, over the life of the 2011-2025 vehicles-, the standards will save an estimated \$1.7 trillion for consumers and businesses and cut America's oil consumption by 12 billion barrels, while reducing greenhouse gas emissions by 6 billion metric tons. Importantly, many auto manufacturers have publicly expressed their support for the new standards.

Our experience during more than 40 years of Clean Air Act implementation is that pollution reduction and a healthy economy can go hand in hand. "When we put in place new common-sense rules to reduce air pollution," President Obama said in January, "we create jobs building and installing all sorts of pollution control technology." In combination with other policies, adopting limits on carbon pollution can help to promote a gradual transition to a cleaner and more efficient energy future. As President Obama said last year. "The countries that lead the 21st century clean energy economy will be the countries that lead the 21st century global economy."

⁵ Id. at 59; see generally id. at 51-73.

⁶ Id. at 73-81.

 $^{^7}$ Remarks by the President to EPA staff, Andrew W. Mellon Auditorium, Washington, D.C., January 10, 2012.

Remarks by the President on America's Energy Security, Georgetown University, Washington, D.C., March 30, 2011.

The need to reduce carbon pollution

Reducing carbon dioxide and other greenhouse gas pollution is not only required by the Clean Air Act – it is critically important to the protection of Americans' public health and the environment upon which we depend. In May 2010, the National Research Council, the operating arm of the National Academy of Sciences, published an assessment which concluded that "climate change is occurring, is caused largely by human activities, and poses significant risks for - and in many cases is already affecting a broad range of human and natural systems." The NRC stated that this conclusion is based on findings that are "consistent with the conclusions of recent assessments by the U.S. Global Change Research Program, the Intergovernmental Panel on Climate Change's Fourth Assessment Report, and other assessments of the state of scientific knowledge on climate change." We note that these are the same assessments that served as the primary scientific underpinning for our 2009 endangerment finding, which was upheld by the D.C. Circuit in its recent decision. In a report issued last year, the NRC emphasized: "Each additional ton of greenhouse gases emitted commits us to further [climate] change and greater risks. In the judgment of the [NRC] Committee on America's Climate Choices, the environmental, economic, and humanitarian risks of climate change indicate a pressing need for substantial action to limit the magnitude of climate change and to prepare to adapt to its impacts."11

The risks to public health and the environment from climate change are substantial and far-reaching. Carbon pollution is leading to more frequent and intense heat waves that increase mortality, especially among the poor and elderly. Scientists also expect increasing carbon pollution and resulting climate changes to lead compared to

⁹ National Research Council, Advancing the Science of Climate Change, National Academy Press, Washington, D.C., p. 3.

¹⁰ National Research Council. Advancing the Science of Climate Change, National Academy Press, Washington, D.C., p. 286.

¹¹ National Research Council (2011) America's Climate Choices, Committee on America's Climate Choices, Board on Atmospheric Sciences and Climate, Division on Earth and Life Studies, The National Academies Press, Washington, D.C.

¹² <u>USGCRP (2009)</u>. *Global Climate Change Impacts in the United States*. Karl, T.R., J.M. Melillo, and T.C. Peterson (eds.). United States Global Change Research Program. Cambridge University Press, New York, NY, USA.

a future without climate change to increased ozone pollution over broad areas of the country, including large population areas with unhealthy ozone levels. ¹³ Ground-level ozone can increase the frequency of asthma attacks, cause shortness of breath, aggravate lung diseases such as emphysema and chronic bronchitis, and permanently damage the airways through long-term exposure. Elevated ozone levels are linked to increases in emergency room visits, hospitalizations, and premature death. ¹⁴

Scientists warn that carbon pollution and resulting climate change are expected to lead to more intense hurricanes and storms, heavier and more frequent flooding, increased drought, and more severe wildfires – events that can cause deaths, injuries, and billions of dollars of damage to property and the nation's infrastructure. Some of these impacts already have been observed.

There is some evidence that changes in temperature, precipitation patterns and extreme events can enhance the spread of some waterborne and pest-related diseases. For example, warmer temperatures can affect the potential ranges of diseases transmitted by ticks and mosquitoes, such as Lyme disease and West Nile Virus. ¹⁵ Increased temperatures and longer growing seasons can also increase production or dispersion of airborne allergens such as ragweed, affecting the prevalence and severity of allergy symptoms. ¹⁶

Other damaging and costly effects of carbon pollution and associated climate change noted in the scientific literature include ocean acidification, sea level rise and increased storm surge, harm to agriculture and forests, species extinctions and ecosystem

¹³ CCSP (2008). Analyses of the effects of global change on human health and welfare and human systems. A Report by the U.S. Climate Change Science Program and the Subcommittee on Global Change Research. Gamble, J.L. (ed.), K.L. Ebi, F.G. Sussman, T.J. Wilbanks, (Authors), U.S. Environmental Protection Agency, Washington, DC, USA.

LS. EPA. Air Quality Criteria for Ozone and Related Photochemical Oxidants (2006 Final). U.S. Environmental Protection Agency, Washington, DC, EPA/600/R-05/004aF-cF, 2006. Available: http://cfpub.epa.gov/ncea/isa/recordisplay.cfm?deid_149923#Download. U.S. EPA. Integrated Science Assessment of Ozone and Related Photochemical Oxidants (Third External Review Draft). U.S. Environmental Protection Agency, Washington, DC, EPA/600/R-10/076C, 2012. Available: http://cfpub.epa.gov/ncea/isa/recordisplay.cfm?deid=242490#Download.

¹⁸ Confalonieri, U., B. Menne, R. Akhtar, K.L. Ebi, M. Hauengue, R.S. Kovats, B. Revich and A. Woodward (2007). Human health, In: Climate Change 2007: Impacts, Adaptation and Vulnerability. Contribution of Working Group II to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change Parry, M.L., O.F. Canziani, J.P. Palutikof, P.J. van der Linden and C.E. Hanson, (eds.), Cambridge University Press, Cambridge, United Kingdom.

damage. ¹⁷ Climate change impacts in certain regions of the world (potentially leading, for example, to food scarcity, conflicts or mass migration) may exacerbate problems that raise humanitarian, trade and national security issues for the United States. ¹⁸

Those most vulnerable to climate related health effects – such as children, the elderly, the poor, and future generations – face disproportionate risks.¹⁹

In upholding EPA's endangerment finding, the U.S. Court of Appeals for the D.C. Circuit found a strong record basis for EPA's determination: "EPA had before it substantial record evidence that anthropogenic emissions of greenhouse gases 'very likely' caused warming of the climate over the last several decades. EPA further had evidence of current and future effects of this warming on public health and welfare. Relying again upon substantial scientific evidence, EPA determined that anthropogenically induced climate change threatens both public health and public welfare."²⁰

The National Research Council and other scientific bodies have emphasized that it is important to take initial steps to reduce greenhouse gases without delay because, once emitted, greenhouse gases persist in the atmosphere for long time periods. As the NRC explained in a recent report, "The sooner that serious efforts to reduce greenhouse gas emissions proceed, the lower the risks posed by climate change, and the less pressure there will be to make larger, more rapid, and potentially more expensive reductions later."

¹⁷ An explanation of observed and projected climate change and its associated impacts on health, society, and the environment is included in the EPA's Endangerment Finding and associated technical support document (TSD). See EPA, "Endangerment and Cause or Contribute Findings for Greenhouse Gases under Section 202(a) of the Clean Air Act," 74 FR 66496, Dec. 15, 2009. Both the Federal Register Notice and the Technical Support Document (TSD) for Endangerment and Cause or Contribute Findings are found in the public docket, Docket No. EPA–OAR–2009–0171 and at http://epa.gov/climatechange/endangerment.html.

¹⁸ Endangerment Finding, 74 FR 66535

¹⁹ Endangerment Finding, 74 FR 66498.

²⁹ Coalition for Responsible Regulation, Inc. v. EPA., No. 09-1322 (CADC 2012), at 30.

²¹ National Research Council (2011) *America's Climate Choices: Report in Brief,* Committee on America's Climate Choices, Board on Atmospheric Sciences and Climate, Division on Earth and Life Studies, The National Academies Press, Washington, D.C., p. 2.

Reducing carbon pollution from vehicles

EPA's efforts to reduce greenhouse gas emissions have begun with motor vehicles. Transportation sources are responsible for more than a quarter of U.S. greenhouse gas emissions, and motor vehicles are the sources that were at issue in the Supreme Court's *Massachusetts v. EPA* decision. EPA's vehicle rules, in conjunction with NHTSA's, will save consumers money and help reduce our dependence on oil. In addition, EPA's renewable fuel standard program reduces oil consumption, helps strengthen rural economies and has the potential to achieve significant reductions in earbon pollution.

In 2010. EPA and the NHTSA finalized a national program setting standards to cut greenhouse gas emissions and increase fuel economy of cars and light trucks for model years 2012-2016. Consistent with the auto industry's recommendation to extend the national program beyond 2016 to support the industry's ability to do long-range planning. ²³ the two agencies developed and, in November 2011, proposed additional standards for model years 2017 through 2025. These programs, based on intensive consultation between the federal agencies, auto makers, the State of California, and other stakeholders, provide substantial benefits that far outweigh their costs.

By 2025, the proposal calls for vehicle manufacturers to meet a CO₂ standard projected to be equivalent to 54.5 miles per gallon on an average fleet-wide basis, if the standard were met through fuel economy improvements alone. The agencies identified wide-ranging opportunities for reducing greenhouse gas emissions and improving fuel economy, and the proposals allow for long-term planning by manufacturers and suppliers to continue development and deployment of fuel-saving and emissions-reducing technologies. The program provides compliance flexibility to manufacturers through a credit banking and trading system to reduce the overall cost of the program, and to provide incentives for market penetration of the most advanced vehicle technologies.

²² EPA, (April 2012) Inventory of U.S. Greenhouse Gas Emission and Sinks: 1990-2010 (transportation sources accounted for 27 percent in 2010).

²³ Dave McCurdy, President and CEO, Automobile Alliance, April 1, 2010 press release. Also, included in November, 2009 comments on the 2012-2016 rule by several auto manufacturers.

As mentioned earlier, these model year 2012-2025 standards will result in substantial oil savings and greenhouse gas reductions. The standards will reduce demand for oil by 2.2 million barrels/day by 2025. Consumers, on average, will see fuel cost savings of \$8,000 for a 2025 vehicle (compared to the average 2010 vehicle).

EPA's heavy-duty vehicle standards provide similar types of benefits. In August 2011, EPA and NHTSA issued the first ever greenhouse gas and fuel efficiency standards for trucks and buses. These standards will jointly reduce fuel use and greenhouse gas emissions from medium- and heavy-duty vehicles, which range in size from the largest pickup trucks and vans to semi trucks. EPA and NHTSA developed the program for model years 2014 to 2018 with support from industry, the State of California and environmental stakeholders.

The agencies estimate that the joint heavy-duty truck standards will reduce CO₂ emissions by about 270 million metric tons and save about 530 million barrels of oil over the life of 2014-2018 vehicles, providing \$49 billion in net program benefits. Owners of model year 2018 trucks will enjoy net savings of \$73,000 over the lifetime of a tractor-trailer, \$6,100 over the life of a heavy-duty pickup, and \$5,500 over the life of a vocational truck. Using technologies commercially available today, EPA estimated that many vehicles will see a payback period of less than one year; others will see payback periods of up to two years. A second phase of regulations is anticipated for model years beyond 2018.

The renewable fuel standard (RFS) program, established by Congress, helps keep money spent on fuel in the United States while reducing greenhouse gas emissions. On March 26, 2010, EPA completed regulations to implement the RFS program mandated by the Energy Independence and Security Act of 2007. This program requires increasing use of renewable fuels over time, including advanced biofuels with significantly lower lifecycle greenhouse gas emissions than conventional fossil fuels. We estimate the RFS program, if fully implemented in 2022, would displace about 13.6 billion gallons of petroleum-based gasoline and diesel fuel, representing about 7 percent of expected annual gasoline and diesel consumption in 2022. We also estimate that the fully implemented program would decrease oil import expenditures by \$41.5 billion dollars, result in

additional energy security benefits of \$2.6 billion, and reduce greenhouse gas emissions by 138 million metric tons of CO_2 equivalent per year.

Providing transparent public information on carbon pollution emissions

In 2008. Congress directed EPA to establish a mandatory reporting system for greenhouse gas emissions. In accordance with this directive, EPA in October 2009 promulgated the Greenhouse Gas Reporting Rule. An estimated 85-90 percent of the total U.S. greenhouse gas emissions from approximately 10,000 facilities are covered by this rule. The rule applies to direct greenhouse gas emitters, fossil fuel suppliers, industrial gas suppliers, and facilities that inject CO2 underground for sequestration. This rule provides the public for the first time with access to source-by-source data on greenhouse gas emissions in these key sectors. To make these data more accessible and transparent, EPA has also created an online Greenhouse Gas Publication Tool, which allows users to review information quickly and easily by filtering emissions data in a variety of ways, including by facility, industry, location, or gas. These data can be used to identify sources of greenhouse gas emissions, to help businesses to track emissions and find cost-saving efficiencies, to inform policy, and to provide information to the finance and investment communities..

In January of this year, EPA released the first greenhouse gas data received under the program. The 2010 data include greenhouse gas emissions reports from more than 6,700 entities in 29 categories, providing information on carbon dioxide, methane, nitrous oxide and several types of fluorinated industrial gases. An additional 12 categories begin reporting for the 2011 emissions year.

The data show that for reporting year 2010 power plants were the largest stationary source of direct U.S. greenhouse gas emissions with 2.324 million metric tons of carbon dioxide equivalent (CO₂e), followed by refineries with 183 million metric tons of CO2e. One hundred facilities each reported emissions over 7 million metric tons of CO2e -- including ninety-six power plants, two iron and steel mills, and two refineries.

Ensuring best technology for big new emitters

In keeping with the Clean Air Act's requirements, States and EPA on January 2, 2011, initiated Clean Air Act permitting of carbon dioxide and other greenhouse gas pollution from the largest new and modified stationary sources of these emissions. More than a year later, the first "Best Available Control Technology" (BACT) determinations for large stationary source greenhouse gas emissions have been successfully completed, and permits limiting greenhouse gas emissions have been issued for a variety of facilities across the country under the Clean Air Act's Prevention of Significant Deterioration (PSD) program.

The Clean Air Act requires owners and operators of large stationary sources of air pollution, prior to building or modifying such a facility, to obtain construction permits. This permitting requirement is triggered when a facility emits specified levels of pollutants subject to regulation under the Act. Once greenhouse gases became regulated pollutants under the Act, emissions of these pollutants can trigger the requirements of the PSD program for preconstruction permits and best available control technology for greenhouse gas emissions, determined on a source-by-source basis. Greenhouse gas emissions also now trigger Title V requirements for certain new and existing sources to obtain operating permits that include and assure compliance with applicable Clean Air Act requirements.

These permitting programs required under the Clean Air Act are proven tools for protecting air quality. But the Act's thresholds for determining when emissions of pollutants make a new or modified source subject to these permitting programs – 100 or 250 tons per year depending on the source category and permit program – were based on traditional pollutants and were not designed to be applied to greenhouse gases. EPA's greenhouse gas Tailoring Rule, issued in May 2010, uses a common-sense, phased approach to implementation of these permitting requirements, focusing on the largest polluters. As noted above, this rule was fully upheld by the D.C. Circuit in its recent decision, which found that the rule alleviated alleged harms to industry and state challengers and that the latter accordingly lacked standing to challenge the rule.²⁴

²⁴ Coalition for Responsible Regulation, Inc. v. EP.1, No. 09-1322 (CADC 2012), at . 73-81.

Under Step 1 of the Tailoring Rule, the greenhouse gas permitting program applied only to so-called "anyway" sources – new or modified facilities that triggered permitting for emissions of other pollutants and also have an increase in greenhouse gas emissions of 75,000 tons per year (tpy) of CO₂-equivalent (CO₂e). Under Step 2, which went into effect in July 2011, the program began to cover large new or modified facilities that would trigger permitting solely due to their greenhouse gas emissions. In this phase, PSD permitting requirements cover construction of new sources with greenhouse gas emissions of at least 100,000 tpy CO₂e. At existing facilities with existing greenhouse gas emissions of at least 100,000 tpy CO₂e, modifications that increase greenhouse gas emissions by at least 75,000 tpy CO₂e also are subject to PSD permitting requirements. Similarly, facilities that emit at least 100,000 tpy CO₂e are subject to the requirement for a Title V operating permit that includes and assures compliance with applicable Clean Air Act requirements.

The PSD permitting process for greenhouse gases is the same process used for many years for other regulated pollutants. In general, PSD permitting is conducted by the states, but depending on the proposed facility's location, the permitting authority with jurisdiction may be the state, a local permitting agency, or EPA. State and local authorities have longstanding experience working together with owners and operators of industrial facilities. EPA has been working closely with permitting authorities to ensure that the transition to greenhouse gas permitting runs seamlessly.

As of June 10 of this year, several dozen large industrial sources of greenhouse gases – such as cement plants, power plants, refineries and steel mills – had received permits for greenhouse gases under these programs. For these sources, best available control technology for greenhouse gases is selected based on analysis of available technologies considering cost, just as it is for the other air pollutants emitted by these facilities. In most cases, the best available control technology selected for greenhouse gases is energy efficiency, which lowers emissions of greenhouse gases and other pollutants while reducing fuel consumption, saving facilities money. For example, new gas-fired power plants have selected turbines with the highest thermal efficiency.²⁵

²⁵ For example, the Pioneer Valley Energy Center is a 431 MW combined cycle power plant located in Westfield, MA. The GHG Best Available Control Technology (BACT) selected for this facility was the

In February 2012, EPA proposed Step 3 of the Tailoring Rule. In Step 3, EPA has proposed to maintain the Step 2 thresholds for greenhouse gas permitting requirements based on a finding that the Tailoring Rule's criteria for further lowering applicable emission thresholds for permitting requirements have not been met at this time. In addition, EPA has proposed to increase the availability of mechanisms to streamline permitting for greenhouse gas emission sources. For example, the proposed rule would revise the new source permit program to enable sources to use Plant-wide Applicability Limits (PALs) for greenhouse gases more broadly, in a manner that is more consistent with the way that this mechanism is used for conventional pollutants. As long as a plant stays within the plant-wide emissions limit, the new source review process is not triggered for further changes at the facility.

Proposing carbon pollution standards for power plants

On March 27, 2012, EPA proposed a Carbon Pollution Standard for New Power Plants. Power plants represent the single largest source of industrial greenhouse gas emissions in the United States and account for approximately 40 percent of all U.S. anthropogenic CO₂ emissions. PPA's proposed new source performance standard would, for the first time, set uniform national limits on the amount of carbon pollution new power plants can emit.

EPA's proposed standards apply to fossil-fuel-fired boilers, integrated gasification combined cycle (IGCC) units and stationary combined cycle turbine units that generate electricity for sale and are larger than 25 megawatts (MW). The proposed standards would require covered units to achieve an emission rate of 1000 pounds of CO₂ per

most energy efficient turbines commercially available for this size facility.

thtp://www.epa.gov/region1/communities.pdf/PioneerValley/FactSheet.pdf). Also, the Lower Colorado River Authority Thomas C. Ferguson Power Plant in Llano County. Texas applied for a permit to modernize and expand its plant. Energy efficient natural gas-fired combined cycle turbines were selected as GHG BACT along with other plant-wide energy efficiency measures that reduced the power consumed by the plant and increased the amount of power available for sale. (http://www.epa.gov/earth1r6/6pd/air/pd-r/ghg/lcra_sob.pdf)

Standards of Performance for Greenhouse Gas Emissions for New Stationary Sources: Electric Utility Generating Units, 77 Fed. Reg. 22392 (April 13, 2012).

²⁷ Or 32.4% of all anthropogenic GHG emissions; from information in Table 2-1 from 'Inventory of U.S. Greenhouse Gas Emissions and Sinks: 1990-2009,' U.S. Environmental Protection Agency, EPA 430-R-11-005, April 2011.

megawatt hour. This standard could be met by current natural gas combined cycle units without controls, or by units fueled by coal or petroleum coke that implement carbon capture and sequestration (CCS). EPA has proposed an alternative compliance pathway, whereby units implementing CCS could comply by meeting the standard on average over the course of a 30-year period. A company could build a coal-fired plant and add CCS later, or a company that installs and operates CCS from the outset would have the flexibility to emit more CO_2 in the early years as it optimizes the controls over time.

The proposal does not apply to existing power plants or to "transitional" units, which include power plant units that already have Clean Air Act permits and that start construction within 12 months of the proposal. The transitional category also includes units that are part of a Department of Energy demonstration project for CCS and are in the process of renewing such permits, and that begin construction within 12 months of this proposal. In addition, the proposal does not apply to modifications of existing plants, or plants outside of the 48 contiguous states.

The nation's electricity comes from diverse and largely domestic energy sources, including coal, nuclear, and, increasingly, natural gas and renewable energy sources. The proposed standard would not change this fact. The proposal reflects the ongoing trend in the power sector to build cleaner plants that take advantage of modern, technologies and fuels produced in the United States, and would ensure that current progress continues toward a cleaner, safer and more modern power sector. It provides a pathway forward for a range of important domestic resources, including coal with technologies that reduce carbon emissions.

Cutting emissions, energy waste and energy bills through voluntary programs

Complementing our regulatory efforts to reduce greenhouse gas emissions are EPA's climate protection partnership programs, such as the ENERGY STAR programs and our domestic methane emission-reduction programs. These partnerships have implemented practical, proven, and cost-effective solutions for reducing greenhouse gas emissions. However, certain market barriers, such as lack of adequate consumer information, persist and continue to limit the widespread investment in and adoption of

energy efficiency, clean energy supply options, and other emissions reducing practices and technologies. EPA's partnership programs work to overcome these barriers – in the residential, commercial, and industrial sectors – by developing tools, offering technical assistance and public recognition, and sharing best practices.

Today, the ENERGY STAR label can be found on more than 65 different product categories with more than 5 billion sold over the past 20 years. To date, more than 1.3 million new homes and over 17,000 buildings across all 50 states have earned EPA's ENERGY STAR certification. Over 700 corporations, which operate thousands of U.S. manufacturing facilities, also participate in ENERGY STAR to build successful energy management programs. To illustrate, EPA's work with the cement industry has helped these manufacturers to improve energy performance. The energy efficiency of U.S. cement plants improved by 13 percent, equivalent to 61 trillion Btu in energy savings over a ten-year period.²⁸

EPA's climate protection partnership programs have achieved strong results over the past two decades. Cumulatively, consumers and businesses have reduced more than 5,400 million metric tons CO₂e of greenhouse gas emissions and enjoyed net savings of more than \$314 billion over the lifetime of their investments with the help of these programs. In 2010, alone, the most recent year for which data are available, consumers and businesses have reduced more than 345 million metric tons CO₂e of greenhouse gas emissions – equivalent to the annual emissions from 81 million vehicles – with net savings of about \$21 billion. More than 23,000 public and private partners across the country have joined our programs, investing about \$102 billion in energy-efficient, climate-friendly technologies during 2010.

Finally, EPA's SmartWay program for the freight transport sector has nearly 3,000 industry partners who commit to reduce fuel consumption and greenhouse gases in the existing fleet of trucks and supply chain operations by deploying strategies such as idling reduction devices, aerodynamic improvements, operational changes and tires

²⁸ Based on the improvement of the industry's performance between 1997 and 2008. See Boyd, Gale and Gang Zhang, "Measuring Improvement in the Energy Performance of the U.S. Cement Industry." Working Paper EE 11-05. Duke Environmental Economics Working Paper Series organized by the Nicholas Institute for Environmental Policy Solutions. May 2011.

http://nicholasinstitute.duke.edu/environmentaleconomics/measuring-improvement-cement-industry

designed to reduce fuel consumption. SmartWay partners have saved 55 million barrels of oil and 23.6 million metric tons of CO₂ from 2004 through 2010.

The Clean Air Act

EPA's recent actions to address greenhouse gas emissions under the Clean Air Act reflect tools and approaches that, for decades, have achieved dramatic successes in reducing pollution while supporting economic growth. For more than 40 years, the Clean Air Act has fostered steady progress in reducing the threats posed by pollution and allowing us all to breathe easier. In 2010 alone, programs implemented pursuant to the Clean Air Act Amendments of 1990 are estimated to have reduced premature mortality risks equivalent to saving over 160,000 lives; spared Americans more than 100,000 hospital visits; and prevented millions of cases of respiratory problems, including bronchitis and asthma attacks. ²⁹ They also enhanced productivity by preventing 13 million lost workdays; and kept kids healthy and in school, avoiding 3.2 million lost school days due to respiratory illness and other diseases caused or exacerbated by air pollution. ³⁰

However, few of the emission control standards that gave us these huge gains in public health were uncontroversial at the time they were developed and promulgated. Most major rules have been adopted amidst claims that that they would be bad for the economy and bad for employment. In contrast to doomsday predictions, history has shown, again and again, that we can clean up pollution, create jobs, and grow our economy all at the same time. Over that same 40 years since the original Act was passed, the Gross Domestic Product of the United States grew by more than 200 percent.³¹ And during that same time, total emissions of the six principal air pollutants dropped by more than 70 percent.³² It is misleading to say that the Clean Air Act is bad for the economy

²⁹ USEPA (2011). The Benefits and Costs of the Clean Air Act from 1990 to 2020. Final Report. Prepared by the USEPA Office of Air and Radiation. February 2011. Table 5-6. This study is the third in a series of studies originally mandated by Congress in the Clean Air Act Amendments of 1990. It received extensive peer review and input from the Advisory Council on Clean Air Compliance Analysis, an independent panel of distinguished economists, scientists and public health experts.
³⁰ Ibid

³¹ Bureau of Economic Analysis, National Economic Accounts, "Table 1.1.5. Gross Domestic Product," http://bea.gov/national/index.htm//gdp

http://epa.gov/airtrends/images/comparison70.jpg

and employment. It isn't. Families should never have to choose between a job and healthy air. They are entitled to both.

The Clean Air Act also has been a good economic investment for our country. A study led by Harvard economist Dale Jorgenson found that implementing the Clean Air Act actually increased the size of the U.S. economy because the health benefits of the Clean Air Act lead to a lower demand for health care and a healthier, more productive workforce. According to that study, by 2030 the Clean Air Act will have prevented 3.3 million lost work days and avoided the cost of 20,000 hospitalizations every year. Another study that examined four regulated industries (pulp and paper, refining, iron and steel, and plastic) concluded: "We find that increased environmental spending generally does not cause a significant change in employment."

The EPA's updated public health safeguards under the Clean Air Act will encourage investments in technology upgrades that can put current unemployed or underemployed Americans back to work. Environmental spending creates jobs in engineering, manufacturing, construction, materials, operation, and maintenance. For example, EPA vehicle emissions standards directly sparked the development and application of a huge range of automotive technologies that are now found throughout the global automobile market. The vehicle emissions control industry employs approximately 65,000 Americans with domestic annual sales of \$26 billion. Likewise, in 2008, the United States' environmental technologies and services industry of 1.7 million workers generated approximately \$300 billion in revenues and led to exports of \$44 billion of goods and services. Iarger than exports of sectors such as plastics and rubber products. The size of the world market for environmental goods and services is comparable to the

³⁴ Dale W. Jorgenson Associates (2002a). An Economic Analysis of the Benefits and Costs of the Clean Air Act 1970-1990. Revised Report of Results and Findings. Prepared for EPA.

http://yosemite.epa.gov/ce/epa/eerm.nsf/vwAN/EE-0565-01.pdf/\$file/EE-0565-01.pdf

³⁴ Morgenstern, R. D., W. A. Pizer, and J. S. Shih. 2002. "Jobs versus the Environment: An Industry-Level Perspective." *Journal of Environmental Economics and Management* 43(3):412-436.

Manufacturers of Emissions Control Technology

⁽http://www.meca.org/cs/root/organization_info/who_we_are)

^{**} DOC International Trade Administration, *Environmental Technologies Industries: FY2010 Industry Assessment.

http://web.ita.doc.gov/ete/eteinfo.nst/068f3801d047t26e85256883006ffa54/4878b7e2fc08ac6d85256883006c452c/\$FILE/Full%20Environmental%20Industrics%20Assessment%202010.pdf (accessed February 8, 2011).

U.S. Census Bureau, Censtats Database, International Trade Data--NAICS, http://censtats.census.gov/naic3_6/naics3_6.shtml (accessed September 6, 2011)

aerospace and pharmaceutical industries and presents important opportunities for U.S. industry.³⁸

Jobs also come from building and installing pollution control equipment. For example, the U.S. boilermaker workforce grew by approximately 35 percent. or 6,700 boilermakers, between 1999 and 2001 during the installation of controls to comply with EPA's regional nitrogen oxide reduction program. Between 2003 and 2010, the Institute for Clean Air Companies (ICAC) estimates that implementation of just one rule – the Clean Air Interstate Rule Phase 1 – resulted in 200,000 jobs in the air pollution control industry. 40

Conclusion

Greenhouse gas pollution, through its contribution to global climate change, presents a significant threat to Americans' health and to the environment upon which our economy and security depends. EPA over the past three years has proceeded in a careful and deliberate manner, in keeping with the requirements established by Congress under the Clean Air Act, to begin limiting carbon dioxide and other greenhouse gas pollution from the largest-emitting categories of mobile and stationary sources. The history of the Clean Air Act since 1970 makes clear that clean air and a healthy economy have gone hand in hand. The Act has created market opportunities that have helped to inspire innovation in cleaner technologies – technologies in which the United States has become a global market leader. Reducing emissions of carbon dioxide and other greenhouse gas pollution will require a gradual transition to cleaner energy sources and more efficient energy production and use. This transition is essential to the long-term protection of public health and the environment and, ultimately, offers real and meaningful economic opportunities to American consumers, entrepreneurs, and businesses.

Network of Heads of the European Environment Protection Agencies, 2005. "The Contribution of Good Environmental Regulation to Competitiveness." http://www.eca.europa.eu/about-us/documents/prague_statement/prague_statement-en.pdf (accessed February 8, 2011).

⁵⁰ International Brotherhood of Boilermakers, *Boilermaker Labor Analysis and Installation Timing*, March 2005, EPA Docket OAR-2003-0053 (docket of the Clean Air Interstate Rule).

⁴⁰ November 3, 2010 letter from David C. Foerter, Executive Director of the Institute of Clean Air Companies, to Senator Thomas R. Carper

⁽http://www.icac.com/files/public/ICAC_Carper_Response_110310.pdf (accessed February 8, 2011).

Mr. WHITFIELD. Thank you, Ms. McCarthy.

Ms. McCarthy, you testified here on March 28th, and you testified that—you made the comment that the EPA rules really were not a major factor on coal plants because coal plants were not going to be built anyway. And Mr. Pompeo asked you the question, he asked, is that your theory? Do you actually believe that? And you said, that isn't my theory. That is an analysis by the Energy Information Office and EIA. They are the ones that have done modeling that took a look at what power plants are being constructed, and et cetera.

And then, just a few minutes ago, Mr. Waxman made the comment that the coal areas are not facing reality. He said they are not being built because of market forces and that gasoline prices—natural gas prices are so low. And we recognize that natural gas

prices are very low.

But the CBO, in a most recent study, indicated quite clearly that, in addition, that one of the major factors related to the lack of building additional coal plants was about environmental regula-

tions; and they specifically talk about greenhouse gases.

And then, in addition to that, you had referred to EIA, that they were the ones saying that we were not going to be building additional coal plants because of natural gas prices. In EIA's most recent report, they said, "In the absence of greenhouse gas policies there would be 40 gigawatts of new coal-fired capacity built from 2011 to 2035."

So my point is this: I have had a real problem with EPA. I know that you are doing your job. You are trying to meet the requirements. But you all continue to mislead the American people. Sure, natural gas price is one factor, but I don't know how you possibly deny that these regulations—the Utility MACT, Cross-State Air Transport Rule, the Boiler MACT, the greenhouse gas regulations—all of these, a multitude, how can you say that they are not having an impact on coal being competitive in the global market-place and in the marketplace in the United States?

Ms. McCarthy. Mr. Chairman, I believe that EPA and my statements have been consistent in saying that we understand that there is a market shift in the energy world. We understand that

there is inexpensive natural gas.

Mr. WHITFIELD. But why?

Ms. McCarthy. Because there is inexpensive natural gas.

Mr. WHITFIELD. And what else?

Ms. McCarthy. And low energy demand.

No one has ever denied that our regulations aren't a factor in—

 $\mbox{Mr.}$ Whitfield. They are a factor. You accept that they are a factor?

Ms. McCarthy. They are a factor. However—

Mr. Whitfield. That is what I wanted to hear.

Now, let me just give you another example. When you all passed the Utility MACT, you refer to it as Mercury and Air Toxic Standards.

Ms. McCarthy. Yes.

Mr. Whitfield. And we talked about this before, but that was sold on the basis that mercury emissions were going to be the pri-

mary benefit. There would be benefits because of mercury emissions. And all of the analysis—your analysis, independent analysis—showed that the primary benefit came from reduction of particulate matter, not mercury emission. And every time we had a hearing up here, our friends on the other side of the aisle specifically talked about, oh, my gosh, we are going—the benefits from mercury reduction.

And my whole point is that is misleading the American people. Sure, there were benefits from Utility MACT or mercury and air toxic standards, but the primary benefit was not mercury reductions. Would you agree with that?

Ms. McCarthy. No, I would not, sir. What I would—

Mr. WHITFIELD. Your own analysis said that.

Ms. McCarthy. What I would indicate to you is that that rule was to follow the Clean Air Act and to regulate a major source of toxic pollution. We regulated those toxics. As part of that it required controls that would also reduce particulate matter.

Mr. Whitfield. Yes, but your own analysis—your own analysis indicate that the primary benefit came not from mercury reduction

but particulate matter reduction.

Ms. McCarthy. The distinction I am trying to make, sir, is that the primary benefit that we are able to capture through cost benefit is particulate matter. That does not mean that there isn't significant public health benefit associated with reducing toxins.

Mr. Whitfield. But it was sold based on mercury reduction.

That is what everybody talked about.

My time has expired, and at this time I would like to recognize

the gentleman from Illinois, Mr. Rush, for 5 minutes.

Mr. Rush. Assistant Administrator McCarthy, I want to thank you for being here today; and as I stated in my opening statement, I want to thank you for being a true professional each time you have been called to appear before this subcommittee. And despite the bullying and the criticism that you have personally experienced and the viscous attacks against the agency that you represent, you have maintained your composure, your professionalism and have continued to faithfully execute the duties of your office; and I commend you and all of your colleagues over at the EPA for continuing to stand up for millions of Americans who might not have the money nor the political influence that industry has but who still expect for their rights and their interests to be protected.

So, again, I will applaud you, and I am eager to hear what you have to say on the implications of Tuesday's Federal Court rulings.

For the record, would you please inform the subcommittee on the most important points of the Federal Appeals Court ruling, especially as it relates to the charges you heard countless times that EPA—here in this subcommittee that the EPA is overreaching and exceeding its authority to regulate greenhouse gases under the Clean Air Act?

Ms. McCarthy. I would be happy to.

First, thank you for your kind words. I consider it a privilege to be here. I would perhaps like to be less privileged at times, but it is wonderful to be here, and I have great respect for this body, so thank you very much.

In answer to your question, the Court made some tremendous statements in support of the substance of the evidence and the science that underpinned EPA's decision that carbon pollution represents a significant threat to public health and welfare in this country. It overwhelmingly said that EPA was following the Clean Air Act when it indicated that the Light-Duty Vehicle Rule, also that carbon pollution from light-duty vehicles rules contribute, and as soon as we made that determination we moved forward with the rules that the Clean Air Act did require us to then look at the permitting of stationary sources.

It also indicated that when we did that—and we phased that in in a common sense way, just focused on the largest sources, and we took a very deliberate and phased approach to looking at how we would address any smaller sources. It said that that rule did not impose burdens on industry or States. In fact, it was a deregu-

lation, and it dismissed all of those charges.

So it has, in essence, provided tremendous support that we were both following the law and the science, which is our jobs and what Congress asked EPA and authorized and required us to do.

Mr. Rush. Thank you. I know that it was a resounding state-

ment of support for your past activities.

Can you explain how this decision impacts EPA's work moving forward or would it have any effect on your work as you move forward?

Ms. McCarthy. EPA has designed a strategy which continues to be a deliberate, common sense approach to regulating carbon pollution, which is necessary to protect public health and welfare. But we have found a way to do that and a way that, again, just focuses on the larger sources. And I think we have shown that time and time again not only in how we are issuing permits in a timely way under the Tailoring Rule and how we have moved forward with the greenhouse gas new source performance standard that just addresses new power plants and in a way that we can make it consistent with the direction of the energy market and with the movement towards clean energy.

Mr. RUSH. Ms. McCarthy, you have been under some pretty relentless attacks for, it seems to me, if I can characterize the attitudes of some on the other side, that you are a hater of this whole industry. How would you respond to those accusations that you are

a hater or you are anti-that you hate the coal industry?

Ms. McCARTHY. I would say that EPA—our job and my job in particular is to look at how we can reduce air pollution that pose significant threats to public health and welfare. We have done that in a way that doesn't single out any fuel supply. It is a fuel-neutral

response.

If you look at how we have developed the carbon pollution standards for new power plants, we recognized that a standard could be established that would accommodate the vast majority of new power plants that are being constructed today and wouldn't pose a significant lowering of the standard than they are able to achieve and have been able to achieve since 2005. And we also established an alternative compliance pathway, recognizing that coal is a significant source of energy in this country now, and it will be in the foreseeable future. And we needed to understand that and provide

an opportunity for new coal facilities, as long as they looked at the most innovative technologies available to that and, over time, found a cost-effective strategy to achieve that standard.

So we have done everything we could to design our rules, recognizing that there is fuel diversity and protecting that fuel diversity moving forward.

Mr. WHITFIELD. The gentleman's time is expired.

At this time, I would like to recognize Mr. Terry, the gentleman from Nebraska, for 5 minutes.

Mr. TERRY. I thank the gentleman.

First, I just want to say that I support clean coal technologies. I am a little frustrated that we haven't had the pilot rollouts and more permits issued for clean coal. We had a hearing one time about how China is able to do it; and even the minority's own witness agreed that, in China, they don't have the regulatory burdens and pathways to get a clean coal facility built. But we have to have

coal as part of our portfolio.

But there does—with the myriad of rules that have come out that seem to all flow towards controlling emissions from coal-fired plants and then the coal ash on top of it—there does appear to be a war on coal. And you combine that with statements made by both the President when he was running and others that are in the administration that seem to agree with some of the environmental groups like the Sierra Club that want to see all coal use ended. So if there is a perception there—there is a perception there, whether the EPA wants to recognize it or not. And I don't think that is bullying, by the way, pointing that out. If I am bullying you right now, will you please let me know.

Ms. McCarthy. Congressman, you never have, and I don't expect you would. I will let you know if you do.

Mr. TERRY. Thank you. I appreciate that.

And another area that I think is important is reducing emissions for models, and that is why I did the Terry Hill bill in 2007. Of course, that was in work with environmental groups, John Dingell, Nancy Pelosi. We were able to get that into the 2007 bill. The President took it upon himself to make some significant changes to that, but, nonetheless, philosophically we are in agreement.

If we can reduce auto emissions, we should. In fact, I drive a Ford hybrid Fusion. I get about 39, sometimes 40, depending on whether it is winter or summer, about 40 miles per gallon and about 600 per tankful. I love that. To me, that is sticking it to the

man.

But I do have to wonder if the 2025 standards that are part of this discussion today are, A, achievable without significant changes in the industry and usage and whether some of the claims like \$8,200 in savings is really accurate that is on—and I am going to submit this for the record. I think you have already mentioned this. This is on the whitehouse.gov—about \$1.7 trillion.

So my first question is, on savings of \$3,000 or \$8,000 for—fuel savings costs of \$8,000 for a 2025 vehicle, is this compared to a 2010 vehicle, as I understand?

Ms. McCarthy. The fuel savings is—my understanding is that relates to the savings that would accrue over the lifetime of the use of that vehicle, and that would be on the basis of a 2025 vehicle.

Mr. Terry. OK. And on the lifetime, can you define lifetime for me?

Ms. McCarthy. It is about the—I am trying to—it is about 15

years.

Mr. Terry. OK, I will lead you then and see if you agree. To realize the \$8,000 in fuel savings, a new car owner in 2025 has to drive 211,000 miles and a truck owner has to drive 249,000 miles to achieve the \$8,000 in savings. Do you agree with that statement?

Ms. McCarthy. It—yes.

Mr. TERRY. Then in my 8 seconds left, so if you own a Ford 150, which is the dominant vehicle in Nebraska, unless you drive a quarter million miles you don't get the \$8,000 fuel savings. But how many Americans today are driving their light trucks 250,000 in the lifetime?

Ms. McCarthy. The only thing I would suggest, sir, is that the added increase in costs that we projected when we proposed the rule was about \$2,000 per vehicle. And so the \$8,000 really is on balance to that \$2,000. So we would project that the lifetime of that vehicle you would have between \$5,200 and \$6,600 in fuel savings. That would be over the lifetime of the one person who held it a long time or two or three.

Mr. Terry. OK.

Ms. McCarthy. But it all depends on how you value gasoline, what you think the price of gasoline is going to be, and we did the best we could to project those figures appropriately.

Mr. TERRY. All right, yield back.

Mr. WHITFIELD. The gentleman's time is expired.

At this time, we recognize the gentleman from Texas, Mr. Green, for 5 minutes.

Mr. Green. Thank you, Mr. Chairman.

Ms. McCarthy, first of all, thank you for always being here and again working with us on a number of issues. I have to admit you don't always tell us yes, but at least we can see what we can do to work it out.

With the DC District Court unanimously affirming the EPA's right to regulate carbon in the absence of Congress passing carbon control legislation, we must turn to ensuring that EPA GHG regulations do not put our energy intensive industries in economic jeopardy. When do you expect the Tier 3 gasoline standards to be released?

Ms. McCarthy. Congressman, the Tier 3 standard is still a rule under development. I don't have any particular time frame for that at this point, but we would fully expect that when that rule is released it will go through a robust public comment process and we will see where we end up.

Mr. GREEN. Well, I am sure you know our committee and the House passed a bill last week dealing with a number of things, and I do have concern with giving time for industry to be able to—like 2 years or so, because they can do it. And you know the district I represent, five refineries and tons of chemical plants.

Ms. McCarthy. Yes. Well, Congressman, we always have quite a significant lead time on when any rulemaking is finalized.

I think I was trying to indicate that we are in the development stage right now. It will take a while to move a bill forward, a rule forward, and then we will have significant lead time. And, in the meantime, we will be working with the industry on what is reasonable and appropriate to propose.

Mr. Green. The next question is, when do you expect carbon

standards for refineries?

Ms. McCarthy. Oh, that also is something we are talking to the litigants about. The administrator made it very clear that the focus

for the agency right now is on new power plants.

Mr. Green. OK, well, I appreciate that on power plants, and hopefully that would apply to refining capacity too, so we wouldn't have to go remake something that, you know, has been added onto

for years.

As you know, I am concerned about the possibility of both of these regulations being issued around the same time and on one hand asking refineries to actually increase their carbon output by requiring them to lower the sulfur content of gas and then on the other hand you are going to ask them to reduce their carbon output below what has occurred under current Tier 2 sulfur standards. I would hope, even though those two are different rules, that you would look at the impact of them and how long you can have the ability to comply with both of them.

Ms. McCarthy. We certainly will. We did that with Tier 2 to understand what the permitting challenges were, what the pollutants might be in terms of increases or decreases. We will certainly do

the same here.

Mr. Green. And are you actively in conversation with the refining section on both of these issues?

Ms. McCarthy. We are.

Mr. Green. In February, EPA proposed to increase the availability of mechanisms to streamline permitting for greenhouse gas

sources. And can you talk about these a little bit?

Of course, I am coming from Texas. I am a little—since Texas refused to issue greenhouse gas permits, we have to ask EPA to do that, and I have heard a couple of plants in Texas are having trouble receiving these type permits. I don't know if this is because of administrative changes in Region 6, but, hopefully—I will follow up with you separately. If you have a comment on if I were a refinery who—in fact, one I heard about yesterday, he is not in our district, but he is in North Texas—if they needed a carbon or greenhouse permit, it would come from the EPA.

Ms. McCarthy. It would in Texas, yes. That is beginning to be very unusual at this point, which is good. Most of the States have stepped up and are actually doing the permitting themselves. In fact, we have had about 44 permits issued. The vast majority of those have been by States and local governments, and we are working with Texas. The permitting—on the permitting side, it has been a pretty significant success story.

Mr. ĞREEN. OK.

Ms. McCarthy. We have been issuing those permits in the timeline under the Clean Air Act, which is 12 months after application. In Texas, we have had some difficulty in getting the information we need to process those permits.

Mr. Green. OK.

Ms. McCarthy. We are continuing to work with the regulated community to try to get that information so that we can get those permits out.

Mr. Green. Have there actually been GHG or permits issued in

Texas by EPA?

Ms. McCarthy. I am not sure about that.

Mr. Green. If you can get back with me.

Ms. McCarthy. Yes.

Mr. GREEN. Mr. Chairman, I yield back my 18 seconds. Thank you.

Mr. WHITFIELD. Thank you.

At this time, I recognize the gentleman from Texas, Dr. Burgess, for 5 minutes.

Mr. Burgess. I thank the chairman for the recognition.

I appreciate Ms. McCarthy being here with us again. We have

had several mornings like this.

Let me just ask—I mean, there have been other mornings when you have come before our committee, and we are grateful for those episodes. I have submitted several questions in writing for the record, and I am still awaiting responses to those questions from other hearings that we have. And I am going to be submitting some additional questions for the record today. I just wonder if I might expect to get an answer to those questions that I will be submitting today, as I haven't received answers from any of the other questions that have been submitted.

Ms. McCarthy. Congressman, I am happy to work with your staff and see if we have missed an opportunity to respond in a timely way. I will take care of that. And any questions you ask, we

will be sure to respond as quickly as we can.

Mr. Burgess. Just to refresh your memory, one of the questions was on the disposal of over-the-counter asthma medications that contain CFCs, and what was the EPA's—what was their recommendation to manufacturers for the disposal of those asthma medications, as we apparently can't grant a waiver to allow those to be utilized by patients? Is the disposal of the asthma medication that is going to have to be destroyed, is the disposal going to be handled in a way that it will prevent the CFCs from entering the environment? Since, apparently, one of the thrusts of the EPA, it has been their concern that asthmatics in this country are widening the hole in the ozone with every puff of a medication.

Again, I do have some questions for the record, Mr. Chairman.

I will be submitting those.

I just would ask in light of your answer, if Mr. Green just—in response to a question from Mr. Green, you said that there would be—he asked if there would be new standards coming for power plants and refineries, and I believe you indicated that there would be.

Ms. McCarthy. What I indicated is that we have proposed standards for new power plants, and we are in discussions in the refinery world, because we announced early on that we are using a common sense approach of looking at the largest sources first. But the administrator has made it very clear that we are not on

a particular timeline at this point on refineries. We are focused on new sources for power plants.

Mr. Burgess. Along those lines, are you going to be looking at the alternative natural gas production from the shale formations? Are you going to be looking at those activities as a source of green-

house gas production?

Ms. McCarthy. At this point, the agency issued a regulation that looks at driving down volatile organic compounds from oil and gas in particular from those wells that use hydraulic fracturing, which is the vast majority of new wells. We have found a way to reduce volatile organic compounds that also significantly reduces methane emissions, which is the significant greenhouse gas that is

emitted in the oil and gas production sector.

So, at this point, the agency has no plans to do anything further on oil and gas, but, as always, we can be petitioned to take a look at these issues. And there are many sectors where we have received petitions, but we are very clear we are looking at new sources for power plants. We are in discussions on refineries, but we are quite a ways away. In any other sector we will be working with the litigants and the courts to make sure that we can continue to address the largest sources first.

Mr. Burgess. Well, you may understand that some of us are concerned about the fact that things tend to get larger than the original intention. And we are at a place where our economy is, depending on who you read, is either continuing to struggle to try to recover or is in a very weak recovery mode. My concern in my part of the world is that, if this is not done carefully, it certainly could have a very negative impact on the economy, certainly in North Texas.

We want these products to be developed safely. We want public safety to always be at the forefront, but at the same time, historically, some of the activities have seemed to be an overreach and, as a consequence, the economic disruption could be significant. What I am hearing you say today is, right now, there is no plan

to do that until you change your mind. Is that correct?

Ms. McCarthy. Well, I would say that we have sent some very clear signals on how we are being as deliberate as the law allows. We also have proposed a step three in the Tailoring Rule which maintains the same level that we have had before. And the next step there is to take a look at what streamlining opportunities are available to us before we need to consider additional step-down. So we are doing everything we can to actually reduce necessary carbon pollution, reduce that as much as possible, but do it in a way that is very deliberate and makes common sense and takes advantage of the cost efficiencies that various strategies to reduce carbon can actually accrue.

Mr. Burgess. Mr. Chairman, I want to submit the questions for the record and ask that they be included in the usual and customary timeline for response.

Mr. WHITFIELD. Absolutely.

At this time, I would like to recognize the gentlelady from Florida, Ms. Castor, for 5 minutes.

Ms. Castor. Well, thank you, Mr. Chairman, and thank you for calling this hearing. It gives us an opportunity, I believe, to discuss some good news when it comes to greenhouse gases and saving consumers money; and that has to do with the progress that we are making when it comes to more fuel-efficient vehicles and money

back into the pockets of consumers at a very critical time.

The good news is the—this doesn't—you know, this doesn't really happen by accident. And I give President Obama and the EPA a lot of credit for pushing all of us and industry, everyone involved, to make greater progress. And a lot of my colleagues here have been at the forefront of that, and my hat is off to them too, because now we are seeing real results.

We are going to reduce the amount of carbon going into the atmosphere and greenhouse gases but save consumers money. And now you can see that consumers are embracing these more fuel-efficient vehicles because they are working better, they have greater pickup, the styles are much more interesting for folks, and they like to save money. They don't want to stop at the gas station. And it has really been a great success story.

And I notice that last week my Republican colleagues held a hearing to receive testimony from various industry sectors about EPA's current and pending future greenhouse gas regulations. Noticeably absent from that hearing was any discussion of the successes that we are having when it comes to fuel efficiency and the EPA's initiatives to reduce greenhouse gas emissions from motor

vehicles.

You know, in the past, industry has been outspoken. They weren't sure that we could improve cars, that consumers in America would embrace more fuel-efficient vehicles, even while we watched other countries around the world advance beyond American industry. Well, that is not the case anymore. This has been a great success for American families and businesses; and, Ms. McCarthy, the administration and your shop deserves great credit for that.

In April, 2010, the administration finalized fuel efficiency and greenhouse gas standards for the model years 2012 to 2016. These standards will save consumers on average more than \$3,000 in fuel costs over the life of a new vehicle. \$3,000. This is the net savings

after accounting for any increased vehicle costs.

And I heard what my colleague, Mr. Terry, was saying, gosh, these cars right now, sometimes they are a little more expensive. If you go out, yes, I know this from family experience, sometimes they are going to cost a little more. But if you do the math, you are going to save. And it is not that you are not going to achieve savings right away. Because you are going to bypass that gas station, and that is money right into your pocket.

In fact, I have some notes here. EPA and DOT estimate a standard yield net savings of roughly \$130 to \$180 per year for consumers with a 5-year automobile loan. That is real money, and this is because the savings on fuel consumption costs substantially outweigh slightly higher loan payments for the vehicles. EPA projects that on average consumers will save that \$3,000 net over the life

of the vehicle.

So, Ms. McCarthy, would you talk a little bit more about the money back into the pockets of consumers and then how the tailpipe standards help shield consumers from price spikes that we

have seen recently at the gasoline pump?

Ms. McCarthy. Well, I think one of the most exciting things for us in terms of the Light-Duty Vehicle Rule is the broad support that that rule actually enjoys. That is everybody from the car companies themselves, who signed on and even asked us to do more, which is why we are looking at 2017 to 2025. First time we have had a national clean car program where we have totally aligned with every State in the country. We also have enjoyed the support of the United Auto Workers.

So it is putting people back to work. It is building the kind of fuel-efficient vehicles that consumers want to buy. And we have not only identified the cost savings to consumers at the pump and explained to them that they will also perhaps not have to go to gas stations as much, which is a benefit I particularly like, but we have also explained to them that it is an energy security issue. It allows us to actually reduce our dependence on foreign oil, and it actually

significantly reduces greenhouse gases.

So I guess the good thing about taking a look at greenhouse gases, which really have to be reduced for public health and welfare, also provides tremendous opportunities for looking at increased efficiency, which almost always saves people money.

Ms. Castor. Yes, and in addition to the consumer savings, I mean, we are talking about greenhouse gases. This program will save 1.8 billion barrels of oil and reduce greenhouse gas emissions from the U.S. vehicle fleet by 21 percent compared to projected emissions without the standard. Is that correct?

Ms. McCarthy. Yes, that is right.
Mr. Whitfield. The gentlelady's time is expired.
At this time, I recognize the gentleman from Kansas, Mr. Pompeo, for 5 minutes.

Mr. POMPEO. Thank you, Mr. Chairman.

Good morning, Ms. McCarthy. Thank you for coming today.

I wanted to clarify something that you said in your opening statement about the Tailoring Rule and what the Court said about the Tailoring Rule. If I understood the opinion correctly, all they said was that this particular plaintiff did not have standing. They did not approve the Tailoring Rule as statutorily authorized. Is that correct?

Ms. McCarthy. They did not speak to the substance of the rule. Mr. POMPEO. Right. So they simply said you found the wrong plaintiff to walk in the door. We have made no statement about the appropriateness or the legality of the Tailoring Rule under the Clean Air Act, is that correct?

Ms. McCarthy. Their decision was that the litigants did not have standing in the case, and they dismissed the claim.

Mr. POMPEO. Thanks. I am not sure that is exactly what you said in your opening statement so I wanted to clarify it. Thank you.

In February, you testified in front of the subcommittee when I asked you if had received guarantees from companies supplying pollution control technology under the Utility MACT Rule, you said you had not; you would look into it. I asked you again in May a very similar question. You said you were reviewing reconsideration petitions that were related to this, specifically one by the Institute of Clean Air Companies, which had asked for partial reconsideration of the Utility MACT Rule. Are you still looking at this? Are you still reviewing this set of issues?

Ms. McCarthy. Yes, we are.

Mr. Pompeo. Fast forward to today where we are talking about the greenhouse gas new source performance standards. You have testimony that says that new coal-based units can use carbon capture CCS technology to comply with GHG emissions. You suggest EPA is being reasonable because you are offering a 30-year averaging. The text of the proposed rule talks about this 30-year proposed averaging. I want to come back to that. But the rule makes it abundantly clear that CCS is nowhere near ready for mass scale deployment, and yet your own rule states that the technology would be jump started by the rule itself. Do you have any commitment from any supplier that they can produce a coal-fired power plant that would comply with these rules?

Ms. McCarthy. I have not sought such a commitment.

Mr. Pompeo. Any reason that we would create a set of rules that we have no evidence that anybody can actually build one of these creatures? In the real world, right? Real people, real mechanics, real plumbers, real pipefitters, real human beings actually constructing a full scale economically viable coal-fired power plant under this set of rules?

Ms. McCarthy. Well, we have been relying on the information on the activity that has gone on and in the technical feasibility of each of the steps necessary for carbon capture and sequestration, the actual capture of the transportation and the storage. Each of those steps is well proven. There are pilots that are demonstrating those at commercial scale. And there are a number of power plants that are coal-fired that are proposing to be constructed using CCS today.

I think we attempted to establish a standard which gave the flexibility for new power plants to be proposed with coal that actually wouldn't make a commitment to CCS for over the course of as much as 10 years and still be able to achieve the standard in the law—in the rule, sorry.

Mr. POMPEO. I appreciate that. Do you believe that if somebody is out trying to finance one of these plants when the technology doesn't exist that there is an entity in the world that would possibly commit the capital to build one of these when they have no idea what the risk is, if in fact their technology doesn't pan out, as so often is the case?

Ms. McCarthy. There are coal-fired power plants being proposed today and permitted that are proposing to use CCS, and I have to assume that they are doing their due diligence for their financing.

Mr. POMPEO. What happens, what are the penalties if they get to year 13 and they don't—it becomes very clear they can't make the 30-year, the 30-year option, that it is not going to work?

Ms. McCarthy. I think EPA will be working with these companies over what the strategy is and the permitting associated with achieving compliance. We will do what we always do, which is to work with the company and look at what a compliance strategy might look like.

Mr. POMPEO. Could they be shut down if it turns out, in year 2013, it is not working? Could the remedy be that if the CCS technology doesn't comply, that the EPA could come in and shut this plant down in its entirety after 12 years of operation?

Ms. McCarthy. I believe it is a 30-year averaging, so I do not

believe that that is a likely scenario, no.

Mr. POMPEO. So, at 26 years, if they are not making it and just everybody stares at it, and we all do the math, and there is just

you can't get there from here?

Ms. McCarthy. The way that the regulation proposes is to establish a plan with the company. And if they miss any of the benchmarks toward a 30-year averaging strategy, that they will have to come in and look at how we would adjust that permit and establish a compliance strategy.

Mr. POMPEO. But if they can't, you could shut them down and

you might?

Ms. McCarthy. Well, it is true of any company that doesn't meet

the compliance obligations, but it very seldom has happened.

Mr. Pompeo. Certainly. And I appreciate that. It is just very different when you are not talking about existing technologies, when you are talking about a technological advance that has yet to be demonstrated to make a bet that you can get there. Thank you for your testimony.

And with that, I yield back, Mr. Chairman.

Mr. WHITFIELD. The chair recognizes the gentleman from California, Mr. Waxman, for 5 minutes.

Mr. WAXMAN. Thank you, Mr. Chairman.

For the past 18 months, we have heard repeated claims that EPA's actions on greenhouse gases under the Clean Air Act were not authorized by law and would cause calamitous effects. I would like to revisit some of these claims now that the DC Circuit Court of Appeals has ruled decisively in EPA's favor. During part one of this hearing held last Tuesday, we heard witnesses and members of this committee describe EPA's actions to reduce greenhouse gases as magical thinking and regulatory overreach. In previous hearings, members of this committee have claimed that EPA is acting without legal authority in regulating greenhouse gases. The DC Circuit appears to have settled that debate.

Ms. McCarthy, how does the court's decision compare with claims

of EPA's regulatory overreach.

Ms. McCarthy. The court indicated that we were unambiguously correct in our interpretation of what is required under the Clean

Air Act, and we have complied with that.

Mr. WAXMAN. Over the past 18 months, this subcommittee also has heard many nonscientists opine about the scientific basis of EPA's greenhouse gas regulations. At least 12 Republican members of the Energy and Commerce Committee have made public statements questioning or rejecting the scientific consensus on climate change. Others have argued that a few phrases taken out of context from hacked emails reveal a conspiracy of bad science.

Ms. McCarthy, what did the court have to say about the adequacy of the scientific record that EPA relied upon to find that

greenhouse gases endanger public health and welfare.

Ms. McCarthy. The court found that the body of scientific evidence that EPA had marshalled to make its endangerment finding was substantial. It looked at the petitions for reconsideration of that science, and it found that it was filled with mischaracterizations, misrepresentations, not looking at the 18,000 peer-reviewed studies that provided the foundation for that endangerment finding, and it seemed to be a clear statement that EPA had done its job on the science as science is supposed to be done.

Mr. Waxman. At the hearing last week, we heard dire predictions about the effect of regulating carbon pollution under the Clean Air Act. We heard that EPA's rules would place a dramatic economic burden on farms and that huge pollution control investments would be required for bakeries. The Farm Bureau even warned that Americans are, quote, "going to be living off imported food," end quote. All of these predictions were premised on the assumption that the court would overturn the Tailoring Rule, which EPA issued precisely to avoid unintended adverse consequences. But the court found that none of the industry and State petitioners had standing to challenge the Tailoring Rule because they failed to establish that the rule caused them any injury or that overturning it would redress any injury they had suffered.

Ms. McCarthy, now that the tailoring rule remains in effect can you explain the greenhouse permitting requirements that apply to farmers and ranchers?

 $Ms.\ McCarthy.$ There are no permitting requirements associated with farmers and ranchers.

Mr. WAXMAN. How about bakeries and other small sources, are they subject to greenhouse gas permitting requirements under the Clean Air Act?

Ms. McCarthy. No, they are not. Not at this point, no.

Mr. WAXMAN. That is because the Tailoring Rule ensures that only the largest sources of greenhouse gases are currently subject to permitting requirements.

Ms. McCarthy. That is correct, and that is where we intend to focus all of our attention, yes.

Mr. WAXMAN. Others have expressed concerns that EPA plans to change the Tailoring Rule thresholds to require permitting for much smaller sources.

Ms. McCarthy, could you speak to these concerns?

Ms. McCarthy. Yes. The administrator has indicated that in no circumstances is she going to be looking at lowering the Tailoring Rule to small sources. We also have an obligation to do a 5-year review, at which time we are going to propose streamlining opportunities. And we have a full work group looking at those opportunities at this point. In our most recent step three proposal, we are proposing to maintain the same level, high level of emissions so that we can continue to capture only the largest sources of greenhouse gas emissions.

Mr. WAXMAN. Thank you.

Coal and natural gas are both fuels used to generate electricity. They are market competitors. What my republican colleagues appear to want is for EPA to treat coal differently than other fuels,

particularly natural gas. They wanted EPA to give coal a pass for

the pollution it generates when burned.

Ms. McCarthy, do the proposed carbon pollution standards set a more stringent standard for coal, or do they set the same standard for all fossil fuel fired electricity generation and let the fuels compete on a level playing field?

Ms. McCarthy. They set the same standard, one standard.

Mr. WAXMAN. Thank you.

Thank you, Mr. Chairman.

Mr. WHITFIELD. The chair recognizes at this time the gentleman from West Virginia, Mr. McKinley, for 5 minutes. Mr. McKinley. Thank you, Mr. Chairman.

There are a series of questions I would like to address, primarily brought about by some of your comments made by the opposition, but also by your comments about that you don't think there has been any change, it has been market driven, of why companies are using gas rather than coal. And I want to remind you back-we had a hearing last year when gas was, gas prices were \$7 or \$8 an MCF. But Purdue University say they were switching from coal to gas because of the EPA regulation threatening to make the by-product a hazardous material. So it had nothing to do with the price of coal or gas; it was the threat of the EPA causing a stigma attached to that product. But I want to go—so I know that it is not all founded. And I do appreciate your patience because you have been here how many times and we have had some interesting—but I want to follow back up on what Dr. Burgess asked you. I have asked you, too, for some letters. I don't whether it is a-I don't want to say it is a conspiracy, but I don't understand why you are not answering our letters or answering questions that you say you are going to get back to us about. I asked you last year, explain to me, in all this discussion of greenhouse gases and global warming—again, I want you to tell me why the Milankovitch, the physicist Milankovitch and his Milankovitch cycle has been-in your mind—discredited.

I would further like to understand why Hal Lewis and his resignation from the American Physical Society, where he says in his comment, if I can just call that up, he said it is the greatest—the global warming scam "is the greatest and most successful pseudo-scientific fraud I have seen in my long life as a physicist." This is not a politician saying this; this is a scientist. This is someone that is the emeritus professor at the University of California, Santa Barbara. And he and 200 other people have signed off on this issue. And I have asked for you all to tell me, as an engineer myself, explain to me why that is not valid to be part of this discussion. And we still don't hear back. Can you get back to us, again, a third, fourth time we have asked for that? Will you do that, please?

Ms. McCarthy. Congressman, if you have written a letter to me, I will certainly answer it.

Mr. McKinley. Not only have we written letters, but we have asked you here to get back. And you are very kind. You say you will do it, and then like so many other folks here, they just get lost somehow, perhaps.

Further, I want to go back to where you say you don't think this has affected the coal fields in this country, when in 1993, the EPA itself said the byproduct of burning coal is not a hazardous material; it should be recycled. In 2000, they came out and said the same thing. But yet, again, the EPA under a new administration picks that fight back up again after it has been disproved twice and is making this threat that the byproduct of burning coal could be a hazardous material. How much more studies are we going to have? It is that kind of uncertainty that is coming out of your office that is causing plants, a coal company, a utility company, to maybe just pull back, like they did at Purdue University. How would you respond? Do you really think we need another—do we need to have another study?

Ms. McCarthy. Well, I think people have asked us when EPA proposed its coal ash rule to take a very close look at the science, to take a very close look at the options and how it applies—

Mr. McKinley. Has the science changed since 1993 and 2000? It

is the same compound.

Ms. McCarthy. I can speak for the science that relate to air pollution, and clearly, the science gets more sophisticated every day. It gets better every day. The clarity and the substance and the robustness of the data, particularly on issues of climate, it gets clearer and clearer all the time.

Mr. McKinley. Well, let me just regain my time. I have only got 18 seconds to go. Let me invite again anyone from the EPA to please come with us to the coal fields across America and talk to the miners and their families when they talk about that when it is suggested that it is the price of gas that is costing them their jobs, when 700 people at Arch Coal get let go. We have got to be more sensitive to the middle class people across this country, and particularly those that have mined coal, that have made America what it is. So let me extend that invitation again to you. I did it to Lisa Jackson last year, and she ignored that. Let me ask you again, please, come and talk to these people and explain to them how there is a future for their industry. Will you do that?

Ms. McCarthy. Thank you—

Mr. WHITFIELD. The gentleman's time is expired.

Mr. McKinley. Thank you very much.

Mr. WHITFIELD. At this time, let me just say we have a couple of votes on the House floor. We have got about 9 minutes remaining, so I am hoping to get at least two more members to ask questions.

At this time, I would like to recognize the gentleman from Massachusetts, Mr. Markey, for 5 minutes.

Mr. MARKEY. Thank you, Mr. Chairman, very much.

On Wednesday Rex Tillerson, the head of ExxonMobil, said that he agreed that global warming is real and manmade, a big moment. And he said that we should just adapt to its effects.

And adaptation is possible for certain segments of the population, but for many, it is not possible. I mean, obviously out in Colorado right now, 30,000 people have just been evacuated, so that is their adaptation to those forest fires and to this historic drought out

there.

And for people who live on Cape Cod, whose homes might be ultimately just swept away, their adaptation might be to move to Worcester or Springfield or someplace, just to get away from the coastline if that is what adaptation means, which is obviously the

So does it make sense right now, Ms. McCarthy, to reduce global warming pollution instead of just trying to adapt later when the human and economic toll of global warming becomes catastrophic? Let's just say, for example, that the Waxman-Markey bill, which passed just 3 years ago on Tuesday—it is the third anniversary of passing in the House of Representatives. If it had passed the Senate as well, would we be well on our way now of reducing the totality of greenhouse gases in our society and putting the planet on a pathway toward an 80 percent reduction in greenhouse gases?

Ms. McCarthy. Congressman, I would agree with you that we need to take action now. And I believe that it is the U.S. National

Research Council who made that point very recently.

Mr. Markey. Now, earlier this week, the DC Circuit Court of Appeals issued a complete and total repudiation of several lawsuits that sought to overturn EPA's regulation of global warming pollution under the Clean Air Act. The court said that EPA's finding that global warming is dangerous was neither arbitrary nor capricious and that EPA's reading of the Clean Air Act was unambiguously correct. The court found that EPA's scientific evidence of record included support for the proposition that greenhouse gases trap heat on earth that would otherwise dissipate into space and that this greenhouse effect warms the climate, that human activity is contributing to increased atmospheric levels of greenhouse gases and that the climate system is warming. Do you agree with that court's conclusion?

Ms. McCarthy. Yes, I do.

Mr. Markey. And do you also agree that the scientific data has supported this conclusion for a long time?

Ms. McCarthy. Yes, I do. I think it is much stronger now than it has been, but yes.

Mr. Markey. Now, it is worth remembering that it was in 2003 that EPA was first sued for failing to use its Clean Air Act authority to curb global warming pollution. That lawsuit culminated in the very famous Massachusetts v. EPA decision, which directed the Bush administration to cease its unlawful refusal to even ask the question of whether global warming pollution was dangerous. This set in motion the Bush administration EPA scientific finding that yes, global warming is dangerous. That was the Bush administration found that yes, it was dangerous. And the Bush White House refusal to accept this EPA determination and the Obama administration subsequent affirmation of this science followed.

It is also worth reminding everyone here that with the help of your strong leadership under four Governors, Ms. McCarthy, Massachusetts has been at the forefront of combatting the efforts-effects of global warming pollution. During Governor Romney's tenure, his administration implemented a long-term vision for cutting the State's global warming pollution by funding renewable energy and playing a key role in efforts to develop a regional northeastern cap and trade system.

And I congratulated Governor Romney for creating that cap and trade system, and I just want to do so again. I think he was a visionary in that way, in the same way he was with the health care

plan that was the model for the national plan that the Supreme

Court upheld yesterday.

And Governor Romney, both on cap and trade and on health care, was and continues to be a real model for the rest of the country to follow, and we just hope that the Republicans continue to have him as their leader and follow his inspirational leadership in those two areas.

Indeed, in a July 2003 letter from Governor Romney to Governor Pataki on the topic he said, quote, "climate change is beginning to have an effect on our natural resources," and he described the need to take steps to reduce the, quote, "power plant pollution that is

harming our climate."

So the science underpinning global warming is nothing new, even if Governor Romney seems to have forgotten what he believes and what he did 9 years ago. The widespread acceptance of this science is nothing new. EPA's authority to act is nothing new. The recognition that the effects of global warming are happening with increasing intensity is nothing new. Regrettably, this subcommittee continues to have hearings that deny that which everyone knows in the scientific community with a very small number of exceptions to be true. And I thank the gentleman.

Mr. Whitfield. Thank you, Mr. Markey. We will inform Mr. Romney that you will probably be voting for him.

At this time, I would like to recognize the gentleman from Oregon, Mr. Walden, for 5 minutes.

Mr. WALDEN. Thank you, Mr. Chairman.

Ms. McCarthy, it is have good to have you back before the subcommittee. We always appreciate your candor and your being here.

You know, I hear from people about the agency that, and they submit things, and you all don't keep track of it. We heard from my colleague, Mr. McKinley, about letters that allegedly apparently have gone unanswered. Does EPA even bother to track or characterize notices of intent to sue the agency?

Ms. McCarthy. Yes, we do.

Mr. WALDEN. You do. So when they come in, what happens? Like, they are going to sue your part of the agency, what happens? Do you characterize those? Do you look at them? Do you track them? How do you manage that?

Ms. McCarthy. In a way that a business would manage that. We have an office that manages that, a general counsel. We track those. We provide information to all the relevant individuals, and we meet our obligations under the law.

Mr. WALDEN. So you compile them. You format them. I mean, you just—they don't go off into some wasteland and you don't know what to do with them?

Ms. McCarthy. No, they do not.

Mr. Walden. Because when Administrator Jackson testified before our committee on February 28th regarding the budget, she said the EPA would post on its Web site petitions for rulemaking and notices of intent to sue. And then recently, EPA wrote to the committee, including myself, and said that you don't have the adequate resources to make that information publicly available and further said EPA doesn't currently have a centralized process to collect, categorize and sort all the petitions for rulemaking that the agency receives. And they say the same thing when it comes to intent to sue. Now, you have just told me you do keep track of that; it is in the counsel's office. So which is it?

Ms. McCarthy. You asked me about notices of intent to sue. I receive those notices when they come in, and they are tracked. I don't get notices of all petitions that might come in relative to rulemaking-

Mr. WALDEN. But you do on intent to sue. OK. Good. Because

what the response back to us from the-

Ms. McCarthy. I am sorry, I am sorry. I have been reminded that the ones I get actually relate to my own business, the air program; I do not track everything going through the agency.

Mr. WALDEN. No, but I understand that. Does he want to testify?

I am just curious.

Ms. McCarthy. Oh, I am sorry, I am sorry. I have been reminded that when I say notices of intent, I am thinking of those that actually lead to a suit, not just every notice of intent that the agency was given. So I am sorry if I have given you incorrect information, Congressman. I will do better.

Mr. WALDEN. Well, good, because that is the heart of the matter of what-it seemed like a pretty simple request to say, could you

put those notices of intent up for the public to see?

Ms. McCarthy. Apparently, we get a whole lot that never reaches my level and a whole lot that never comes to fruition, and I will certainly make sure that I don't misspeak in the future.

Mr. Walden. No. no.

Well, let's go to the heart of the matter here. What about the ones that go to your level since they are categorized, they are compiled, you know what they are, could you put those up since the public knows.

Ms. McCarthy. I will certainly go back. I will talk to the office of counsel. Those come to me as advisories. I don't know whether they are, again, complete in terms of what the agency receives.

Mr. Walden. But here is the real issue that I think the American public, a lot of my constituents, are frustrated about. All too often, you get what is called the friendly lawsuit or a friendly intent to sue. Now I never thought any lawsuit was very friendly, but you get an intent to sue. And then an agency is able then to settle that lawsuit sort of out of any transparent environment. People don't even know that somebody filed an intent to sue. And all we are thinking is it would be better to have some transparency and accountability in your operation. And I am getting really confused signals between what you said and your counsel behind you said and what the administrator said, and I don't think any of the answers are adequate for what I want, what many members on this committee seek and what should be simple. If somebody says they are going to sue your agency to compel a rulemaking or something of that nature, I just don't understand if it gets to you, why you can't make that public. If the EPA's Office of the General Counsel doesn't track that information, at least what you track, can you put up on the Web site?

Ms. McCarthy. Well, I guess the one thing we can agree on is

that I don't think of any lawsuit as friendly either.

Mr. WALDEN. So you don't agree with me on the transparency need or the accountability need?

Ms. McCarthy. We work very hard at transparency. I do not know—I do not believe that I can make a commitment one way or another. If the administrator has raised this issue, I am sure we

are looking at it as closely as we can.

Mr. WALDEN. No, they came back to us in a letter and said, you can't do it. It is too complicated, too burdensome; you don't have the resources; you don't compile, you don't characterize; it is just impossible to do. That is really not an adequate response from my perspective, because I think this is important information. It often leads to a resolution that is out of the view of the public until it is done. People don't have an adequate way to participate in something that can be very meaningful to them. And I am just not—I don't get it. I guess you want to keep this stuff under cover and hidden away, and I don't know. It is bad government.

Ms. McCarthy. My understanding is that we are provided extensive information of the committee, and we are certainly indicated

when we have been sued.

Mr. WALDEN. I have got the response right here from Administrator Jackson where they say you don't have the ability to do this.

Mr. WHITFIELD. The gentleman's time is expired.

The time has expired on the first vote, so we are going to try to get over there and get that, and then we have a second vote. So, as soon as this is over, which it is, we will vote on the second, we will be right back. So we should be back within 15 minutes. And if you wouldn't mind waiting, I would appreciate it.

Ms. McCarthy. Of course not.

Mr. WHITFIELD. So we will recess for a period of 15 minutes and we will be right back.

[Recess.]

Mr. WHITFIELD. We will reconvene the hearing. And I apologize once again for the slight delay.

At this time, I would like to recognize the gentleman from Vir-

ginia, Mr. Griffith, for 5 minutes.

Mr. Griffith. Good morning. Thank you so much for being here. And I do appreciate the fact that you are willing to come and speak with us on a fairly regular basis. In your testimony, you stated that as of June 10th of this year, several dozen large industrial sources of greenhouse gases, such as cement plants, power plants, refineries and steel mills had received permits for greenhouse gases under these programs, PSD and Title V. How many is several dozen?

Ms. McCarthy. Pardon me?

Mr. GRIFFITH. How many is several dozen? Are we talking about just 24, or is there some other number?

Ms. McCarthy. Forty-four permits of greenhouse gas limits have been issued; 37 by the States, and 7 by EPA, and 29 permits are pending at EPA.

Mr. GRIFFITH. And are those permits final, or are some subject to appeal?

Ms. McCarthy. The 44 permits would be final permits. I do not have knowledge of whether or not they have been appealed.

Mr. GRIFFITH. And how many permit applications are pending or waiting to be processed?

Ms. McCarthy. Twenty-nine with EPA.

Mr. Griffith. There are 29 pending with EPA?

Ms. McCarthy. Eight pending permits are draft permits issued by the State. We have 29 permits pending at EPA; 24 of them are greenhouse gas only. That is where the States do the rest of the permitting. And five of them are for the full suite of pollutants that need to be permitted throughout our PSD program.

Mr. Griffith. And how long does it take to process an applica-

tion?

Ms. McCarthy. The requirements in the law ask us to complete the permit within 12 months of a completed permit application. So that is the goal here, and for the most part, we have achieved that goal.

Mr. Griffith. So you are saying it is 12 months, because my understanding is at a field hearing in response to a question for the record following your testimony last year in Texas, the committee asked, how long would it take to process a PSD permit, and my understanding was that at that time you indicated it would be made in a few weeks for most projects. So you are telling me now it is taking somewhere close to a year?

Ms. McCarthy. The requirement under the Clean Air Act is for

Ms. McCarthy. The requirement under the Clean Air Act is for EPA to expeditiously process them. They recognize a 12-month window between a completed application and issuing the permit.

For greenhouse gases, we have in some ways beaten that and done it more quickly. Other times, it takes awhile for a completed application. And then we have completed it within that 12-month period.

Mr. Griffith. One of my concerns—I am switching gears on you. One of my concerns when I hear the testimony, and it is not new with you or it is not exclusive to party either, is that sometimes people from more affluent areas don't understand what is going on in a district like mine, which compared to the rest of the country is not that affluent; \$36,000 is I believe the latest census data on the household income. And so when we have new regulations, no matter how well intentioned and how much they might save somebody money, when you add \$1,000 more to the cost of a car by 2016 and a total by \$3,000 more by 2025, you are basically saying that a lot of folks in my district won't ever be able to afford to buy a new car. In fact, the National Auto Dealers Association says upwards of 6 million people won't be able to afford a new car because of these costs.

And it is just sometimes when I hear folks talking about the cost of electricity, when your boss, Lisa Jackson, was in here, and I asked her what happens when people can't afford to heat their homes, she indicated there is a program for that. But my people back home tell me that in the cold winter, the program runs out of money about mid February, and people are cold. And I am just wondering why we don't have, or at least not have the appearance that the EPA is paying attention to some of these numbers, that unemployment does happen? In my district, we have two coal-fired power plants that are going to be shut down. One of them is going to be retrofitted and partially reopened with natural gas.

And of course, I also hear from my folks who make electricity, and one of them who no longer works in the industry, he says, we have been through this before where natural gas prices go down and everybody thinks that is going to be our saviour and inevitably we always have to turn back to coal.

And so you are looking at a lot of different health factors; people not being able to heat their homes properly. We heard testimony in a different hearing yesterday that unemployment is a major factor in determining whether or not people are healthy. And yet it does not appear that when the EPA is studying these regulations that they look at, so what happens in the poorer regions where they can't afford the electricity or they can't afford a new car, or it is going to create large pockets of unemployment in the region. And we lost 1,100 jobs in coal in the region, not in my district, but in the region in just the last few weeks.

And you know it just amazes me sometimes that there seems to be a disconnect with Washington and with more affluent areas of the country who don't understand that they truly are relegating the people that I represent to a lower lifestyle, a lower health quality standard. And you know, I don't think it is intentional, but it sure is real. And I appreciate that, and I yield back my time.

Mr. WHITFIELD. The gentleman's time is expired.

At this time, I recognize the gentleman from Colorado, Mr. Gardner, for 5 minutes.

Mr. GARDNER. Thank you, Mr. Chairman.

And thank you, Administrator McCarthy, for being here today. And to follow up a little bit on the questions from my colleague from Virginia, you mentioned the word disproportionate risk in your statement. Is there a disproportionate burden on poor when it comes to the rising cost of energy?

Ms. McCarthy. I would assume that—I am sorry, I don't necessarily understand. Clearly every dollar matters more to somebody who has less dollars than others.

Mr. GARDNER. So it is a disproportionate share, a disproportionate burden on the poor when energy prices rise?

Ms. McCarthy. It certainly is a more significant challenge, I would assume.

Mr. GARDNER. So a disproportionate burden, right.

Ms. McCarthy. I am just being a person.

Mr. GARDNER. Right? I mean, you would say yes to that, a disproportionate burden?

Ms. McCarthy. In my personal opinion, yes.

Mr. GARDNER. Thank you.

In your testimony, you stated that the EPA has proceeded to begin limiting carbon dioxide and other greenhouse gases pollution from the largest emitting categories of mobile and stationary sources. EPA said that absent the Tailoring Rule 82,000 sources would need PSD permits annually and over 6 million sources would need operating permits. Does the EPA believe it has the legal authority to regulate all these sources?

Ms. McCarthy. The legal authority to regulate? Yes.

Mr. GARDNER. OK. Yes, the answer is yes. Will EPA be expanding the number of sources in future years?

Ms. McCarthy. It will depend upon the assessment we make, and we will do a report on that, and we will see what we can do and what streamlining opportunities there are.

Mr. GARDNER. So the answer would be yes, it might expand?

Ms. McCarthy. I would not want to presume what we are going to do in the future. I know what we are doing now and the record that we have.

Mr. GARDNER. But the answer is not no?

Ms. McCarthy. It is not no, correct.

Mr. GARDNER. There are more than 70 source categories and subcategories regulated under the NSPS program. Are the over 70 source categories all potentially subject to greenhouse gas NSPS standards?

Ms. McCarthy. Are they potentially?

Mr. GARDNER. Yes.

Ms. McCarthy. Yes.

Mr. GARDNER. So they all potentially, all 70 sources, are potentially. OK.

And then the other question I have for you is back in 2008, EPA published a notice that listed numerous source categories that could be subject to greenhouse gas regulation under the Clean Air Act in the Federal Register. Besides utilities and refineries, there was a very long list. Are there any of these sources that you would exempt from regulation? Utility boilers?

Ms. McCarthy. We make individual case judgments on where the sources of pollution are, the risks they pose, the technologies

available and whether or not NSPS is a good tool.

Mr. GARDNER. So you wouldn't exempt that, ships, ocean-going vessels, aircraft and aircraft engines?

Ms. McCarthy. We are addressing those issues through litigation as well as other responses.

Mr. GARDNER. Locomotives? Nonroad vehicles? What are nonroad vehicles?

Ms. McCarthy. I haven't made that judgment, and we haven't made that scientific or technological assessment.

Mr. Gardner. Motorcycles?

Ms. McCarthy. I haven't made that assessment.

Mr. GARDNER. Dirt bikes, snow mobiles, any of those that you would exempt?

Ms. McCarthy. I am not in a position to exempt or assess any of those at this point.

Mr. GARDNER. Marine, marine engines, all-terrain vehicles,

ATVs, nothing?

Ms. McCarthy. I am not going to make an assessment of that, and I am not going to indicate what EPA's judgment might be in the future. I don't think you would want me to do that.

Mr. GARDNER. Let me read a few more of these. Passenger buses, air conditioning cooling systems, highway and nonroad fuels, farm tractors, fork lifts, harbor crafts, lawnmowers, string lawn trimmers. Would you exempt string lawn trimmers?

Ms. McCarthy. I am not going to make any judgment about the future of EPA's action.

Mr. GARDNER. Portable power generators, handheld lawn care equipment, leaf blowers, trimmers, construction equipment, cement

kilns, iron and steel production facilities, lime industry, chemical manufacturing, commercial buildings. These are all part of a long list. And the Tailoring Rule ratchets down. And so when you talk about the fact that this Tailoring Rule, we don't know what is going to happen, that is the uncertainty that exists with businesses, that is the uncertainty that exists in the economy. And so you are saying you are not going to regulate it now, but we don't know what you are doing in the future. You say you can't do it now, but the Tailoring Rule ratchets down. And so things like lawn mowers, things like string lawn trimmers, maybe not today, but maybe down the road that is what you are saying, correct?

Ms. McCarthy. I think we make judgments. And if you look at how EPA has applied the new source performance standards, it is on the basis of the amount of pollution, whether there are control strategies, whether or not the tool should be applied. And I think you are asking questions about sectors where those judgments haven't been made. But it is very clear the direction of this agency. We are going after the largest sources of greenhouse gas emissions, those that are heavily regulated sources, those where there is now uncertainty that carbon regulation and carbon interest has caused, and we are trying to address that uncertainty in a reasonable commonsense phased approach. That is what we are doing.

Mr. GARDNER. So are you going to stop there? Is that it?

Ms. McCarthy. We have made a commitment in the Tailoring Rule at a 5-year window to take a look at whether or not the threshold should be lowered and the type of streamlining opportunities that would be available to the agency to address greenhouse gases.

Mr. Gardner. So——

Mr. Rush. Moving on, Mr. Chairman.

Mr. Whitfield. The gentleman's time is expired. Sorry. At this time, I recognize the gentleman from Texas, Mr. Olson, for 5 minutes.

Mr. Olson. I thank the chair for the recognition.

Welcome, Administrator McCarthy. Thanks for coming today to give us your time and expertise. Most of my questions are going to focus on the Las Brisas Energy Center in Corpus Christi, Texas. They proposed 3,200—no, wait a minute, sorry, 1,320 megawatt power generator, energy power generator, that is doing it with petroleum coke, pet-coke, which is a byproduct of the local farming that is done along the Gulf Coast and right there in the Corpus Christi area. This project is supposed to provide power for 850,000 homes. Construction will provide about 1,300 jobs, direct jobs, 2,600 indirect jobs, so about 4,000 jobs. And once it is operating, it will be about 100 direct jobs and 200 indirect jobs. So big economic impact in the Corpus Christi, Texas area, Nueces County. It is important in Texas that we get this plant operating as soon as possible because ERCOT, our power regulator in our State, the grid manager, said that Texas will have a 2,500 megawatt shortfall by 2014. So just a little over 2 years, a 2,500 megawatt shortfall. That is 850,000 homes. We are at risk of brownouts and blackouts, so it is important that the Las Brisas Energy Center gets up on line as soon as possible.

The permit process has been going on for 3 years, and they got the final PSD, the Prevention of Significant Deterioration, permit from the Texas Council on Environmental Quality just this past year. But these new greenhouse gas permitting, the new greenhouse gas permits, these rules have been issued after the TCEQ got the permit, the PSD permit, approved, may make them go through the whole permitting process again. Last year, seven Members of Congress and myself wrote Administrator Jackson. And she asked Region Six Administrator, former Region Six Administrator, Al Armendariz, to respond. He wasn't a credible regulator. He had been retained before he became the Region Six Administrator to testify against Las Brisas Energy Center, and we are still waiting for an objective answer.

So I have one request. Will you commit to giving me, persevering

and expediting the Las Brisas PSD permit?

Ms. McCarthy. I will commit that the agency in each of its regions has been committed to expediting these. I do know that a permit application is under review by the region. I also know that we are waiting for information from Las Brisas at this point in

order to complete that permit.

Mr. OLSON. Can you give me that list of the information you have because I wrote them yesterday, and they will get you anything you need like that? So please give that information ASAP, and I will get that information to you. They want this, because we need to get this thing up and running as quickly as possible. My State is in a power shortage, a potential very dangerous crisis, because we are the fastest growing State in the Union. We have got this heat wave that the Nation is being affected right now, but it is a very serious problem. We need to address this right now, and this power plant can do—again, 2,500 megawatts is—with a shortfall we have of 1,320, this power plant in and of itself will provide.

And one more question about Las Brisas, a little clarification. It is about the new source performance standards for CO2. In March, a couple months ago, EPA proposed new CO2 standards targeting fossil fuel power plants. Under the new standards, power plants would be subject to a maximum CO2 emissions rate of 1,000 pounds per megawatt hour, a rate that a new coal-fired power plant cannot meet without installing carbon capture technologies, which doesn't even exist. This only applies—my question is this only applies to new sources. So it would exempt power plants that have already begun the permitting process, is that correct?

Ms. McCarthy. We are—it would, as long as we have proposed a transitional category for those that have permits and can begin

construction within a year.

Mr. Olson. Would Las Brisas be included in this transitional status?

Ms. McCarthy. Actually, they have petitioned us to take a look at that. I am sure they have responded through comment, and we will respond to that petition, and we will take a look at it. We did actually solicit comment on this issue to make sure that we had the right facilities included in that transitional category and to take comment on that 12-month window.

Mr. Olson. OK. Again, please expedite that process because we need to get this power plant up and running as soon as possible.

You know, PEPCO, because we got it all over the Gulf Coast there. If we don't use it to produce our power, guess what, we got to send it overseas somewhere. We need that. That is America energy, American jobs.

I yield back the balance of my time. Thank you.

Ms. McCarthy. Thank you.

Mr. WHITFIELD. The gentleman's time has almost expired, so thank you.

Mr. Rush, do you have any additional questions or comments?

Mr. Rush. Mr. Chairman, I just want to thank again Ms. McCarthy for her outstanding testimony and for the time that she has been here. She waited for us, and so I just want to let her know how much we appreciate it.

Mr. Chairman, with that said, I do have a document I want to enter into the record. So I would ask for unanimous consent that this report, "Gearing Up: Smart Standards Create Good Jobs Building Cleaner Cars."

Mr. WHITFIELD. Without objection, so ordered.

[The information is available at: http://www.bluegreenalliance.org/news/publications/document/AutoReport Final.pdf]

Mr. WHITFIELD. Thank you, Mr. Rush.

I just want to make one additional comment, to follow up on Cory Gardner's line of questioning. I think that the concern here is that under the major source definition under the Clean Air Act, any emission, 250 tons in some cases, 100 times in other cases, you all have the responsibility to regulate. And so you issued the Tailoring Rule because of the demand it would take if you went down to that level would overwhelm the agency. But yet legally you do have a legal responsibility to go down to 250 or 100, whatever the case may be. And I think that was the point that Mr. Gardner was getting to, is that theoretically, if someone did bring a lawsuit and said, you are violating the statute and you should be down at 250 instead of 100,000 or 75,000, that would be a clear violation of the clear statement of the law in the Clean Air Act. So I think that is where these farm groups and others are concerned, even though you are not at that point yet.

But I also want to thank you very much for coming to be with us today. And I want to bring up just one other matter, which does not really relate to you personally as much as it does the Office of Congressional Affairs and Mr. Arvin Ganesan, and so forth. As you know, we have had a lot of hearings, and we are going to have a lot of hearings between now and when this session ends, and we don't have a lot of days left. And we have had some issues on attendance of witnesses in a number of hearings. I have got a long list of them here: Alternative fuels hearing, we tried three or four different times on Margo Oge to try to get dates that she could come, and she couldn't come. She has changed them. She couldn't come. Finally, she has agreed to a date. On the RIN fraud case, because ONI is having hearings, we have some substantive issues that we have want to explore on that, and we have had difficulty getting witnesses. On a field hearing that we are having relating to new source review, greenhouse gas, we are having difficulty getting a hearing. And then Dr. Burgess referred to this Primatene

Mist issue and methobromide issue, which all comes about as a result of Montreal Protocol. We have been trying to get a hearing on that and have had great difficulty because Oversight and Investigation is doing a hearing. And you all have over 17,000 employees. You have a budget of \$8.4 billion, and I hope that maybe you would talk to Mr. Ganesan and some others. I know we have had a lot of hearings and there has been a lot of demands, but we are going to continue to have hearings, and we do hope that you all will make every effort to—we have tried to accommodate you all, too. It hasn't been a one-way street. But we really would appreciate you all making a concerted effort to get witnesses here.

So that would conclude today's hearing. The record will remain open for 10 days.

And once again, Ms. McCarthy, thank you for being with us today.

And that will conclude today's hearing.

[Whereupon, at 11:12 a.m., the subcommittee was adjourned.]

[Material submitted for inclusion in the record follows:]

Opening Statement of the Honorable Fred Upton Subcommittee on Energy and Power Hearing on "The American Energy Initiative: A Focus on EPA's Greenhouse Gas Regulations" June 29, 2012

(As Prepared for Delivery)

It has been more than a year since the House passed H.R. 910, the Energy Tax Prevention Act. That bill would have reined in EPA's back door cap and tax authority. Today, the agency is moving aggressively to implement this agenda, and with each passing day the threat it poses to the American economy is becoming more real.

Earlier this week, a federal court upheld key portions of EPA's greenhouse gas regulatory agenda. No question, it was a victory for the Obama EPA. However, it is important to note that federal courts can only decide whether agency rules pass legal muster - not whether they are a good idea. And the GHG regulatory agenda is proving to be a very bad idea.

Policy decisions belong in Congress, and Congress needs to stop the threat to our economic future posed by GHG regulations.

Something else happened recently that in its own way is bigger news than the court decision. Both Alpha Coal and Arch Coal announced that they are shutting down several mines and that hundreds of miners will lose their jobs – adding to the list of victims in the war on coal that is an integral part of EPA's GHG regulatory agenda. The sad reality is that we are no longer just predicting job losses; we are beginning to see them.

But it isn't just coal mining companies that are feeling the pain. At last week's hearing on GHG regulations, this subcommittee heard testimony from a cross-section of the American economy. Several witnesses associated with coal-fired electricity generation said that the proposed New Source Performance Standards would bring an end to new coal and raise electricity prices. A small refiner warned that GHG regulations would destroy domestic refining jobs and raise the future price of gasoline.

And the impacts are reverberating throughout the economy. For example, the President of the American Bakers Association raised concerns about the threat of direct regulation of the baking industry, and what it would do to jobs and to the prices consumers see at the supermarket.

In addition to the direct regulation of small businesses and farmers that is coming, these businesses will face the indirect impacts of higher input costs being passed on to them. A Pennsylvania farmer representing the Farm Bureau warned of a double jolt to agriculture – higher costs from utilities, refiners, and manufacturers being passed on to the agriculture sector, and the possibility of direct GHG regulation at some point in the future.

Since few of America's industrial competitors are imposing anything even remotely as stringent as EPA's GHG regulations, we are putting domestic manufacturers at an unfair disadvantage. Instead of creating jobs, we are outsourcing them. That is the wrong direction for our country.

Overall, the threat to our economy from the GHG regulatory agenda – to jobs, prices, and global competitiveness - is becoming harder to deny. The need for H.R. 910 is greater than ever.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

WASHINGTON, D.C. 20460

DEC 2 7 2012

OFFICE OF CONGRESSIONAL AND INTERGOVERNMENTAL RELATIONS

The Honorable Ed Whitfield Chairman Subcommittee on Energy and Power Committee on Energy and Commerce United States House of Representatives Washington, D.C. 20515-6155

Dear Chairman Whitfield:

Thank you for your letter of August 10, 2012, requesting responses to Questions for the Record following the June 29, 2012, hearing entitled, "The American Energy Initiative," focusing on greenhouse gas regulations.

The responses to your questions are provided as an enclosure to this letter. Again, thank you for your letter. If you have any further questions, please contact me, or your staff may contact Cheryl Mackay in the EPA's Office of Congressional and Intergovernmental Relations at (202) 564-2023.

Sincerely,

Laura Vaught

Deputy Associate Administrator for Congressional Affairs

Enclosure

cc: The Honorable Bobby L. Rush, Ranking Member

EPA Responses to Questions for the Record Hearing on EPA Greenhouse Gas Regulations Subcommittee on Energy and Power Committee on Energy and Commerce June 29, 2012

Witness: Assistant Administrator Gina McCarthy

The Honorable Mike Doyle

1. In the proposed rule, companies are given an option for what you call "30 year averaging" of carbon emissions to meet the proposed standard. The rule says that in the first 10 years, a power plant can meet a higher standard of 1,800 pounds per megawatt hour if it plans to install CCS technology after 10 years. By year 11, power plants must install CCS technology and begin capturing carbon allowing for only 600 pounds per megawatt hour of carbon emissions.

a. Building on Mr. Pompeo's questions, I'm also concerned about what happens if CCS technology is not fully developed and commercialized in 10 years? You've indicated that a plant may have to shut down entirely if the technology does not prove effective.

Although a source would be subject to penalties under the Clean Air Act if it did not achieve the standard, the EPA believes it is extremely unlikely a company would move forward with a design that it is not confident could meet the standard. The EPA believes that some project developers may find the 30-year averaging option appealing. It is for this reason that the EPA is taking comment on the compliance alternative. In addition, the EPA stated in the preamble of the April 13, 2012 proposal, "for added flexibility, under this [30-year] option, we are taking comment on allowing the owner/operator to select a different emission trajectory to achieving the 30-year average as long as the owner/operator obtains EPA approval of that rate before beginning operations." 77 Fed. Reg. 22,406 (April 13, 2012). Whatever pathway a developer takes, the EPA believes that the 1,000 lbs CO₂/MWh standard is a technologically achievable standard.

b. Will EPA pursue "look-back" enforcement actions against such a company as now they have not complied with the 30 year averaging of carbon emissions?

The EPA handles enforcement matters on a case-by-case basis. The EPA assesses the relevant factors for each specific situation in determining whether to take a formal enforcement response in a particular case, and if so what sort of response is warranted under the specific facts of that case.

2. EPA has issued many significant rules affecting power plants. Have any of those significant rules required one fuel type (e.g. coal) to meet the capabilities of another fuel type (e.g. natural gas) as is done in this rule?

The EPA has other fuel- and technology-neutral standards. For example, all electric generating units (EGUs) that have commenced construction since 1978 and that are subject to subpart Da, the new source performance standard (NSPS) for certain EGUs including fossil fuel-fired boilers and integrated gasification combined cycle units (IGCCs), are subject to the same PM standard regardless of the fuel burned. Similarly, when the EPA amended the utility NSPS NO_X standard in 1998, the amended limit was the same for all fuels.

3. Can you name a technology provider that has told you or your agency that they will guarantee the operation of a new coal-fired power plant at the emissions level required by this rule?

There are several projects currently under development that are designed to meet limits significantly below the standard. For instance, Summit Power recently announced that they had signed contracts for the construction and operation of a coal-fired power plant with 90% capture (http://www.texascleanenergyproject.com/2012/summits-texas-clean-energy-project-reaches-major-milestone-with-signed-epc-and-om-contracts/).

4. In reading the rule, EPA claims to have good intentions to spur CCS deployment. If you receive broad feedback that you've missed the mark, will you alter the rule with respect to that feedback?

The EPA will consider all public comments we receive on the proposal.

5. If EPA does not expect any new coal plants to be built, why shouldn't EPA simply consider making companies build the most efficient plant possible?

The EPA did consider proposing separate greenhouse gas (GHG) standards for new coal-fired and new gas-fired electrical generating units, but determined not to do so. Instead, the EPA proposed to combine coal-fired units and natural gas combined cycle units into one category for purposes of regulating GHGs. The reasons are presented in the preamble to the proposed rule:

"For three principal reasons, it is appropriate for the EPA to combine the Da category and the stationary combined cycle component of the KKKK category at this time for purposes of regulating GHGs. First, all of the plants covered by the new combined category (including fossil fuel-fired boilers, IGCC units and NGCC units) perform the same essential function, which is to provide generation to serve baseload or intermediate load demand. It is sensible to treat as part of the same category units that generate baseload or intermediate load electricity, regardless of their design or fossil fuel type.

Second, all newly constructed sources have options in selecting their design (although it is true that natural gas-fired plants are inherently lower emitting with regard to CO₂ than coal-fired plants). As a result, prospective owners and operators of new sources could readily comply with the proposed emission standards by choosing to construct a NGCC unit. These two factors provide sufficient legal rationale for the EPA to combine the Da category and the combined cycle component of the KKKK category for purposes of establishing a standard of performance for GHG emissions.

The agency has previously combined one type of baseload and intermediate load combined cycle unit (IGCC, previously covered under subpart GG) with Da units for the purposes of setting a standard [40 CFR 60.41Da(b), Feb. 28, 2005]. This action now similarly combines another type of baseload and intermediate load combined cycle unit (NGCC, previously covered under Subpart KKKK) with subpart Da units for the purposes of setting a standard.

A third factor lends additional support. Combining the categories does not raise adverse policy concerns. On the basis of comments made during the listening sessions, we anticipate that some commenters may question whether combining the categories and applying the NGCC standard to all new plants within the combined category may limit construction of new coal-fired power plants, and thereby have a disruptive effect on the electric power industry, increase electricity prices and/or have adverse implications for energy diversity in new generation. We do not believe that this action would have those effects. As discussed below, and importantly, economic models forecast no new construction of coal-fired generation without CCS through the analysis period, which extends until 2020 (when the standard will be revisited). Accordingly, economic conditions are expected to be the main driver precluding, or at least limiting, construction of coal-fired EGUs. Because of those economic conditions, there is a strong independent movement of power plants serving baseload generation toward NGCC. In light of that movement, it is appropriate for the EPA to focus on this technology in developing the standard, rather than subcategorizing and providing a separate standard for new coal units. See Portland Cement Ass'n v. EPA, 665 F.3d 177, 190 (D.C. Cir. 2011) (affirming the EPA's decision not to subcategorize in part because of "the universal movement in the portland cement industry towards adoption of preheater/precalciner technology").

Notwithstanding these points, we recognize the possibility that a limited amount of new coal-fired construction may nevertheless occur. Today's action would not foreclose construction of new coal-fired EGUs. Rather, the new coal-fired EGUs that may be expected to be built in the foreseeable future (and for reasons stated above, this is anticipated to be a relatively small number) may install CCS control equipment (if not at the time of construction, then not long thereafter). By doing so, they may achieve the same average CO2 emission rate (at least over time) as a natural gas-fired combined cycle unit. It is reasonable to expect that some coal-fired power plants may be able to implement CCS at the present time, and thereby achieve the 1,000 lb CO₂/MWh standard immediately. As noted elsewhere, CCS has been demonstrated to be technologically achievable, and, even though it is costly, there are some state and federal programs that can make CCS more affordable. Several power companies have announced plans to incorporate CCS at six already permitted coal-fired EGU construction projects in this country (as we discuss below in section V.B., concerning transitional sources). Programs exist that provide some funding for CCS through pilot or other demonstration programs, and we expect those to continue. In addition, we reasonably expect the costs of CCS to decline over time. We are not proposing that CCS does or does not qualify as the "best system of emission reduction" that "has been adequately demonstrated" for new coalfired power plants. Rather, the feasibility of CCS and its availability for the limited

amount of new coal-fired construction that may be expected, means that this action to combine the categories and establish the NSPS at the proposed 1,000 lb $\rm CO_2/MWh$ emission limit will not have notable adverse effects on new coal-fired construction or on the electric utility industry, electricity prices, or energy diversity. We welcome public comments on this discussion. 77 Fed. Reg., 22,410 (April 13, 2012).

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